
*Robt. Huntley.*

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BY
GEORGE MAN BURROWS, M.D. F.L.S.
AND
ANTHONY TODD THOMSON, F.L.S.
MEM. OF THE ROY. COLL. OF SURG. AND THE MED.-CHIRURG. SOC. LOND.
AND FELL. OF THE ROY. MED., THE PHYS. AND SPEC. SOC.
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THE

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# RETROSPECT

OF THE

# PROGRESS OF MEDICAL SCIENCE,

FROM JULY TO DECEMBER, 1815.

Sic unum quicquid paullatim protrahit aetas
In medium, ratioque in luminis eruit eras.
Namque alid ex alio clarescere corde videmus
Artibus, ad summum donec venêre cacumen.

LUCRETIUS, lib. v.

ART *is a composite of Experience and Science,* Experience providing it Materials, and Science giving them a *Form.*

HARRIS'S HERMES, 5th edit. p. 352, *in nota.*

IF this observation be applicable to Art in general, it is particularly so to the *Healing Art.* It may, however, be reasonably inquired, why the accumulated facts of ages, although aided by the discoveries which have enriched the ample roll of Science, have, nevertheless, been insufficient to raise a superstructure, solid in its foundations, and uniform and perfect in its design? Medicine may be compared to a fabric, the supports of which are all the natural sciences; and unless those who enter its portals be previously acquainted with the principles upon which the edifice is constructed, they will neither examine with judgment, study with advantage, nor be able to contribute either to its ornament, or its strength, or its utility.

If the works of those who have recorded their observations, posterior to that of the primitive authors, be examined, it will be found that too many of the medical facts which are detailed as new have no claim to originality; that the attempts to

separate the useful from the unprofitable have borne, too often, the impressions of carelessness as well as of incapacity; and that the theories which have been suggested to elucidate Pathology, and to improve the doctrines of Therapeutics, have rather been the offsprings of unreined imagination and visionary hypothesis, than the result of correct observation and severe philosophical induction. Hence the prodigious accumulation of matter without a correspondent advantage.

This evil may be attributed to two causes. In the first place, the majority of medical practitioners have, always, been imperfectly educated; and thence more fitted for action than for reflection: and in the second, almost all of them have been greater observers than readers; and consequently have frequently published, as original, remarks already noted by their predecessors, or even coeval with the great Father of Physic. Such contributions, therefore, instead of adding to the stores of Medical Knowledge, have only added to the labours of the Collator, who laudably endeavours to separate the ore from the alloy, and to impress the stamp of Science upon the materials which Experience has collected. Still, however, the practice of noting and recording observations is highly laudable; and, when directed by a mind stored with the information of the past, and enlightened by relative studies, is the only true method of establishing the Healing Art upon unerring principles.

But, even when guided by Science, the advancement of Knowledge may be accelerated or retarded by adventitious circumstances. War, the direst foe of Philosophy, whose baleful clouds, which so long hung over afflicted Europe and obscured the paths of literature, have, at length, been happily dispelled by the dawn of Peace, restricted, for a time, the interchange of improvements among the civilized nations, but could not prevent their progression. It is truly pleasing to contemplate, during this space, the numerous proofs of British genius when left to its native resources; and the opportunities we now enjoy of tracing the advancement of the Sciences on the continent, strikingly display the superiority of our countrymen in the cultivation of that of Medicine.

Conspicuous as this advancement is, and honourable as it is to the talents and industry of British Practitioners, yet, it is obvious that an era is arriving, when a still nearer approximation to that degree of perfection in the Theory and Practice of Medicine which we fondly anticipate, may be rationally expected.

Whilst we reflect with pain on the incompetence of the majority who have been suffered to practice, and how inadequate they were to generalize advantageously on the facts which

fell under their observation, and to profit by their experience, we look forward with pleasure to the operation of those provisions, which have been recently enacted, to enforce the fundamental principles of appropriate education in all who desire to exercise, in one department at least, the honourable profession of Medecine*.

As Medical Education has recently, necessarily, become the subject of much discussion and attention in this country, the remarks of Mr. Cross on the Medical Schools of Paris have been published most opportunely†; and from those of other travellers, also, upon various foreign schools, many hints will no doubt be collected, that may tend to enlarge our views and to establish a system in this Metropolis at once liberal, comprehensive, and enlightened.

In the Retrospect now offered to our readers, it will be seen that a spirit for improvement in every branch of Science connected with Medicine is already widely diffused, and has produced, even in the short period it embraces some observations and discoveries highly worthy of attention.

### ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

So much has been accomplished in perfecting what may be regarded as the pure Anatomy of the human body, that any novelty in this important branch of Medical Science is more likely to be confined to new arrangements, than to consist of any addition to the materials already accumulated. Under this head, therefore, we have little to notice. Mr. Alexander Walker, in a sketch of an attempt to systematize Anatomy, Physiology, and Pathology‡; proposes to divide Anatomy into three distinct parts: the 1st, to embrace the consideration of the mechanical or loco-motive organs, comprising the bones, ligaments, and muscles: the 2d, the vital organs, under which term he classes the absorbing organs, both surfaces and vessels; the organs of circulation; the glands and secreting organs; and those of nutrition, respiration, and generation: and the 3d, the intellectual organs, comprehending the organs of sense where impressions are made; the cerebrum where these excite ideas; and the cerebellum whence he conceives volition to re-

* The very excellent Regulations of the Court of Examiners of the Society of Apothecaries, for the examination of Candidates, and the spirited manner in which they are carried into effect, are the surest pledges to the public that ignorance cannot escape detection, or obtrude its evils into the practice of the Profession.

† For a review of this interesting work, see *Repository*, vol. iv. p. 370, 470.

‡ Vide *Annals of Philosophy*, vol. vi. p. 283.

sult. Physiology, he proposes also to arrange in a similar manner, by merely substituting the term *function* for that of *organ:* thus making three *orders* both of organs and functions; the loco-motive, the vital, and the intellectual; each of which would contain three *genera;* namely, "of the first, or loco-motive, those organs and functions which support, connect, and move; of the second, or vital, those which absorb, circulate, and secrete; and of the last, or intellectual, those which feel, think, and will."

This arrangement, as far we have stated it, would certainly facilitate the study of Anatomy and Physiology; but when the author of it extends the principle to pathological arrangement also, substituting the term *diseased functions* for that of *functions,* we are of opinion the generalization is carried beyond its proper limit.

Another addition to our elementary treatises on the subject now before us has been made by Dr. John Gordon, who has just published the first volume of "a System of Human Anatomy*." This work is intended to be divided into eight parts,

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* *A System of Human Anatomy.* By John Gordon, M.D. F.R.S.E. Lecturer on Anatomy and Surgery, and on the Institutions of Medicine; Member of the Royal College of Surgeons of Edinburgh; and one of the Surgeons to the Royal Infirmary. vol. i. 8vo. pp. 261. Edin. 1815. As we shall take an early opportunity of laying a review of this work before our readers, we do not at present enter into any detailed account of its contents: but we feel disposed to make the following extract regarding the *rete mucosum;* because it agrees with our own opinion, and is in itself interesting.

"In the Negro, Caffre, and Malay, I have satisfied myself by many dissections, that there is a *black membrane* interposed between the epidermis and the true skin, upon which the dark colour of these people entirely depends; and hence I have no doubt, that the colour of black men in general is owing to a similar substance. This membrane sometimes peels off with the cuticle, and sometimes adheres to the true skin. It is more tender than the cuticle, and thinner; but like it, perfectly inorganized, and without any appearance of holes, or plates, or fibres§. But, after the strictest examination, I have not been able to find any light-coloured Rete Mucosum, corresponding to this black one, in the inhabitants of Great Britain, nor in those of other nations resembling them in colour. I have tried all the means usually said to be necessary for discovering it, and many others besides, but always without success: I am, there-

"§ Meckel's description of this membrane is the most minute, and the most accurate, I have met with. (Hist. de l'Acad. Roy. de Berlin 1753.)

"This author takes notice of a fact, which I have had many opportunities of observing; viz. that the cicatrices of wounds, and the marks of the small pox, or of ulcers of any kind in black people, so far from remaining white, as many have asserted, uniformly become blacker than the other parts of the skin.

which will embrace all that can be required to be known of the structure of the human body; but two only of these are contained in the present volume. The first treats "of the external form, stature, and weight of the human body;" the second "of the Anatomy in general of the common systems and common textures." The subject is discussed in a more full and philosophical manner than in any of the preceding systems which have appeared in this country; the descriptions of the visible structure and relative situations of the various parts are not only extremely minute and accurate; but, the chemical components and properties of each are also detailed; and several other points of considerable interest, such as the comparative bulk, weight, and organization of the parts in the fœtal and the adult state, are brought into view. These circumstances certainly render this system more interesting to the already-formed anatomist; but we are, at the same time, apprehensive that they rather tend to diminish its utility as an elementary treatise. The multiplicity of the objects, and the minuteness of the examination which is entered into of all their parts and qualities, contribute to perplex the noviciate, whose mind is yet prepared for generals only; whilst, even in the very commencement, from the nature of the arrangement, subjects are anticipated, and a degree of knowledge presupposed, which is altogether incompatible with the object of a work intended for the instruction of the uninformed.

If pure Anatomy afford little scope for novelty to the inquirer, the wide field of Physiology presents yet many untrodden paths. Within the period embraced by this Retrospect, the investigations to develope the functions of the animal œconomy have not been very numerous; but they have been of considerable interest, and have nearly rendered intelligible some of the most apparently complex phenomena of the living machine.

From a number of well-conceived and ingeniously conducted experiments, made on the bones of the human fœtus at different

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fore, disposed to deny the existence of any such membrane in white persons. The greater number of anatomical writers seem to have copied the description of it, one from another; and I have little doubt, that those who conceived they had actually seen it, had seen only the cuticle, from which they had previously peeled off some superficial layers. The colour of the skin in white people depends, partly on the cuticle, but chiefly on the true skin, as already remarked. (p. 236.) Whether this be the case, also, in the tawny varieties of the human species, or whether they have not a tawny membrane, like the black membrane of the Negro, I have had no opportunity of ascertaining."

periods of its growth, and on those of young quadrupeds, of the cetacea, and of birds, Mr. Howship has been enabled to draw the following conclusions as to the means employed by the animal œconomy in the process of ossification*. "1. That in the mammalia, the first rudiments of ossification in the long bones are the effect of a secreting power in the arteries, upon the internal surface of the periosteum, which produce a portion of a hollow cylinder;" and this is antecedent to the evolution of any cartilaginous structure. "2. At a certain stage of the process, however, a cartilage is formed, which, by the nature of its organization, and by admitting of a specific provision of cavities and canals lined with vascular membranes, which secrete an abundant store of gelatinous matter, is adapted to this particular purpose;" and by conducting the ossification within itself, serves to determine the figure of the extremities of the future bone. 3. That cartilage may be defined—"an even and finely granulated albuminous matter†, deposited in the interstitial spaces of an exceedingly elastic bed of a semi-transparent reticulated structure, which is apparently a modification of gelatin. 4. That from the period when the ossification proceeds by the medium of the cartilage, the process is uniform until the growth of the bone be completed. The epiphyses are formed and attached to the bones by the same means. 5. That the ossific matter in the cylindrical bones is deposited primarily in the form of fine thin tubular plates: a mode of deposition of all others the most favourable for their being subsequently re-modelled, and facilitating all changes of structure. 6. That while the phosphate of lime is provided by the capillary arteries between the cartilage and bone, the mechanical pressure of the fluid secretions within the medullary cavities of bone, operating in different directions, according to the particular determination given by the circulation, is the chief agent in extending the cylinder, and affecting the subsequent changes of structure. 7. That the mode of circulation most favourable

* Vide *Transactions of the Medico-Chirurgical Society*, vol. vi. p. 263. This paper was read before the Society on the 14th of February last; and is illustrated by coloured microscopic figures, the execution of which is equally creditable to the author and the Society under whose auspices they are presented to the public.

† Mr. Hatchett (*Phil. Trans.* 1799) had ascertained that the soft flexible part of bone which remains after the phosphate and carbonate of lime have been separated, resembles coagulated albumen in most of its chemical properties; and hence Dr. Gordon proposes to nominate it the *albuminous part of the bone*, instead of *cartilage*. Its quantity on an average is from 35 to 40 per cent. of the whole bone analysed.—*System of Human Anatomy*, vol. i. p. 234.

for ossification, is a very slow and uniform motion of the blood through the capillary system; for securing which, a provision is made in the inflexions of minute arteries, the rectangular mode in which the smaller branches are given off, and some other circumstances. 8. That in the formation of the cylindrical bones, the ossific surface is arranged into tubular plates of two different sizes, constituting a larger and a smaller series; an arrangement by no means essential to the increase of a bone; because in many of the early stages of ossification, and also where the growth is slow, the larger series is found to be entirely wanting. 9. That the only apparent use of the larger series of tubes, is that of augmenting the quantity of blood circulating through the ossifying structure, so as to increase the rapidity of growth. 10. That in the growth of the cylindrical bones, and of those flat bones that are formed upon cartilage, the deposit of the ossific secretion is in the first instance made around the external openings of the smaller series of tubes*, and upon these only. 11. That in the flat bones of the skull, the circumstances under which ossification takes place differ materially from those above described. In these the phosphate of lime, in combination with the animal mucilage, is occasionally deposited in small detached unequal masses, without regularity, as if merely laid in the way, preparatory to their subsequent application; that these soon become connected with the more central parts of the bone, and are found to decrease in thickness, as they increase in breadth, until they are finally consolidated with the original plate of bone. 12. That the particular simplicity observable in the mode of production of the bones of the skull, affords a strong argument in favour of the opinion, that pressure, variously modified, constitutes one of the most efficient instruments in the hand of Nature: for in this instance the uniform, though gentle, pressure from the impulse of the circulation, and the constantly increasing volume of contents in the head, must be admitted to be the sole agents

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* The nature of these tubes is thus explained:—"*Examination 5.* Sections from the cartilage of the lower end of a thigh bone of a child at birth were next laid in the field of the microscope. A great number of tubular canals were found, many of which terminated immediately upon the surface of ossification. Each canal was filled with a peculiar colourless glairy or mucilaginous fluid.

"The edge of the newly formed bone, examined with a strong magnifying power, exhibited an appearance of small, short-pointed villi, shooting forwards from the surface of the bone into the substance of the cartilage. These villi were only sufficiently opaque to be just visible when a strong light was cast upon them."—*Medico-Chirurg. Trans.* vol. vi. p. 266.

in completing that process. 13. That the ultimate texture of bone is not laminated, but reticulated; the phosphate of lime being deposited as an interstitial substance."

As several of these conclusions are perfectly original, the mind is backward from admitting them on the evidence of the few experiments that have been made; but from the specimen which Mr. Howship has afforded of his talents for contriving and conducting minute experiments, we have no doubt his further prosecution of the subject will render them completely satisfactory.

In some degree analogous to the labours of Mr. Howship, is the investigation of Professor Carlisle into the connexion between *vascular and extra-vascular parts**. He regards "those parts of organic bodies, which have no power of self-repair, which hold no continuity with the circulating fluid material destined to replenish the waste, to augment the bulk, or repair the accidents of the living fabric," as extra-vital; and instances, as the best example of the union between vital and extra-vital parts, the shells of testaceous animals which are completely extra-vascular. They are first produced by a substance thrown out from the surface of the animal, and are augmented and have their injuries repaired by the same means; nothing being thrown out by the ready-formed shell, as is the case in bones and other vascular parts. Thus in experiments which the Professor made upon the garden snail *(helix nemoralis)*, he found that "by fracturing and breaking away the shell in various parts," the repairs are "effected from within by first smearing over an epidermoid varnish, and then by plastering the inner surface of that film with successive calcareous lamina." He, also, ascertained that even in their softest state, shells, including those of birds' eggs, with their albuminous membranes, do not possess vessels, and cannot be injected from the vascular parts of the bodies of the recent animals.

We look with impatience for the promised continuation of this inquiry.

Notwithstanding all that has been written regarding the reciprocal influence of the *nerves* and *sanguiferous systems* upon each other, the subject is still involved in considerable obscurity. *M. le Gallois* had asserted that the action of the heart and circulating organs depends altogether on the spinal marrow, from which they receive their nerves: but some recent experiments of British physiologists make this opinion doubtful. By a very extensive series of experiments, Dr. A. P. Wilson Phillip in particular has endeavoured to settle the question, how far the action of the heart is influenced by, or depends on,

* Vide *Repository*, vol iv. p. 89.

nervous energy*. These experiments were performed chiefly on rabbits, who were rendered insensible by a blow on the occiput, and the circulation supported by artificial respiration; the brain and spinal marrow being laid bare and stimulated, or destroyed by a hot wire, or removed, according to the object to be ascertained by any particular experiment.

In eleven experiments the brain and spinal marrow were totally destroyed, yet the action of the heart continued unaffected for a considerable time; and when it became languid, was renewed and kept up by artificial breathing, and florid blood produced. Notwithstanding, however, these proofs of the independence of the sanguiferous system on the nervous, other experiments were equally demonstrative that the application of chemical stimuli† to the brain and spinal marrow greatly increases the action of the heart; and this occurred whether the application was made to the anterior or posterior portion of the brain, or to the cervical or lumbar portions of the spinal marrow. This apparent contradiction is explained by admitting the conclusion of Haller, "that the heart and other muscles possess an excitability independent of the nervous system, and at the same time that they are all equally capable of being stimulated through this system."

Dr. Phillip further proves, that, although the spinal marrow, as *M. le Gallois* has demonstrated, is capable of performing its functions independently of the brain, yet it may be influenced through the brain. "Thus," says Dr. Phillip, "the excitability of the spinal marrow bears the same relation to the brain which that of the muscles bears to the spinal marrow and its nerves; and I would add all nerves distributed to muscles, some of which arise from the brain, but seem to bear precisely the same relation to the sensorium with those which arise from the spinal marrow‡." The sensorial functions only are lost by

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* *Experiments made with a view to ascertain the principle on which the action of the heart depends, and the relation which subsists between that organ and the nervous system.* By A. A. Wilson Phillip, Physician in Worcester. *Phil. Trans.* Part i. 1815. p. 65.

† When opium and tobacco were employed, the stimulant effect of both "was soon succeeded by a more languid action of the heart than that which preceded their application to the brain."

‡ The following illustration is given by Dr. Phillip. "In the lowest animals we find only the muscular system, which exists without either the nervous system or the sensorium. In the next class we find the muscular and nervous systems, which exist without sensorium. In the most perfect animals we find the three vital powers combined, each having an existence not immediately depending on the others, but all so connected, that none can exist long without the others."

the removal of the brain. The nervous, then, obeys the sensorial system, in the same way in which the muscular obeys the nervous system; but as the muscular system has an existence independent of the nervous, so has the nervous independent of the sensorial system." There is every reason for believing that the peristaltic motion of the abdominal viscera obeys the same laws as the action of the heart; as this motion continues until the parts become cold after the brain and spinal marrow are removed.

The following are the conclusions Dr. Phillip draws from his experiments:—1. That the muscles of involuntary motion obey the same laws with those of voluntary motion. 2. That the apparent difference in the nature of these muscles arises from their being under the influence of different stimuli. 3. That they are both capable of being stimulated through the nervous system. 4. That the power of both is independent of the nervous system. 5. That what is called the nervous system consists of two parts, whose existence is not immediately dependent on each other; the one performing the sensorial functions, the other conveying impressions to and from the sensorium, and without bestowing any power on the muscular system acting as a stimulus to it. 6. That there is, therefore, in the most perfect animals, a combination of three distinct vital powers, not immediately depending on each other; one of the muscular system, one of the nervous system properly so called, and one of the sensorial system. 7. That the muscular system, though independent of the nervous system, is so influenced by it, that the power of the former may even be destroyed through the nervous system. 8. That both the muscular and nervous systems, though independent of the sensorial system, are so influenced by it, that they may even be destroyed through it. 9. That although, in the less perfect animals, we find the muscular life existing alone, and the muscular and nervous existing without the sensorial life, in the more perfect animals, they are so connected that none can exist long without the others. 10. That nutrition, circulation, and respiration, are the means by which they are so connected.

In a second paper*, Dr. Phillip details experiments by which he ascertained that chemical stimuli applied to the nervous system exert a greater power over the heart than mechanical stimuli, "while the muscles of voluntary motion are more excited by the latter." By stimulating generally the brain and spinal marrow, the brain is affected; but the muscles of volition are affected only by stimulating the origin of the spinal

* *Phil. Trans.* 1815. Part ii. p. 424.

marrow and the nerves. Neither chemical nor mechanical stimuli affect the heart unless the impressions be made on a large portion of the brain. Dr. Phillip was led to conclude, that the rare recurrence of irregular action of the heart is owing to that organ being subject to stimuli which affect all the parts of the nervous system only, a circumstance of great importance in the animal œconomy. The velocity of the circulation, independent of the heart, is much increased by stimuli applied to the brain; but no irregular action is excited, the difference consisting merely in a greater or less degree of power.

The experiments of Dr. Phillip, as far as they tend to refute *M. le Gallois*' opinion, are much strengthened by some experiments by Mr. William Clift on carp*. We shall only notice his fourth conclusion—"That whether the heart is exposed or not, its action continues long after the spinal marrow and brain are destroyed, and still longer when the brain is removed without injury to its substance."

A view of this important subject, different from that by Dr. Phillip and *M. le Gallois*, is taken by Mr. Pring. We shall embrace an early opportunity of laying a review of his work† before our readers, and at present only notice that although he maintains that the action of the heart is not independent of the brain and nervous system; yet, as the circulation can be maintained for some time after decapitation, and then ceases, he admits, "that the dependence of the action of the heart upon the function of the brain is not direct, but mediate;' that it is not the immediate source of the power which moves the heart, but that it is connected with this source."

Contrary to the generally received opinion, Dr. Parry, in a paper read before the Royal Society‡, endeavours to prove that the pulse does not depend on the systole and diastole of the heart, but that this vibration is nothing more than the reaction of the blood to maintain its regular continuous motion through the arteries, which he regards as simple canals. He conceives the pulse to be produced by a diminution of the diameter of these canals, and this is effected at every junction of a vein with an artery, and hence a pulse is produced.

Nearly about the same time that Dr. Parry was thus at-

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* *Experiments to ascertain the Influence of the Spinal Marrow on the Action of the Heart in Fishes.* By Mr. William Clift. *Phil. Trans.* Part i. 1815. *Repository*, vol. iv. p. 233.

† *A View of the Relations of the Nervous System, in Health and Disease*, &c. by Daniel Pring, Member of the Royal College of Surgeons, London; and Surgeon at Bath. 8vo. p. 256. London, 1815.

‡ *Repository*, vol. iv. p. 165.

tempting to explain the action of the arteries, Dr. *Zugenbuhler* read a dissertation to the *Société Academique de Medecine*, on the motion of the blood in the veins*. After pointing out the insufficiency of all former theories to account for this vital action, he thus states his opinion of its cause. "During the diastole of the heart, a vacuum is produced into which the blood flows. The heart is then irritated to re-action by the blood which fills it, and expels it by its systole. While the systole continues, the blood remains at rest, until by a new dilatation of the heart it again rushes into the vacuum; and thus the powers of the heart are mechanically continued†." We need scarcely observe that this mechanical doctrine is not likely to be adopted in this country.

In nothing is the perfection of Nature more conspicuous than in adapting the organs which are destined to perform the same functions in different animals to the peculiar circumstances under which they are placed, and their habits of life. Sir E. Home has exemplified this remark in an examination of the respiratory organs in some genera of vermes which live in water‡. He has ascertained that in the lamprey, the lampern, the myxine, the aphrodita sculeata, and the leech, these consist of openings on both sides of the neck, leading into oval, or spherical, or, in some, flattened bags, which act the part of gills; the water passing into them, and being afterwards thrown out again after the air is separated from it. The uses of this peculiarity of structure are rendered obvious by examining the habits of the animals in which they are found. Thus "in the *lamprey*, the mouth is more constantly employed in laying hold of its prey and other substances; and therefore the respiratory organs are not connected with it, but situated near it. In the *myxine*, which feeds upon the internal parts of its prey, and buries the head and part of its body in the flesh, the openings

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* *Journal Genéral de Médécine, &c. &c.* tom. liii. p. 129.

† The following are the author's expressions: "Cordis diastole vacuum oritur, et venosus sanguis imbibitur. Cor sanguine repletum irritatur ad re-actionem, et systole cruor expellitur. Durante systole, sanguis venosus quiescat donec dilatatione novâ cordis in vacuum irruat; et sic rhytmo alternante, vires mechanica cordis perennant."

‡ Phil. Trans. 1815, Part ii. p. 256. art. xvi.—"*On the Structure of the Organs of Respiration in Animals, which appear to hold an intermediate place between those of the class Pisces and the class Vermes, and in two of the genera of the last-mentioned class.* By Sir Everard Home, Bart. V. P. R. S.

§ *Ibid.* p. 265. art. xvii.

of the respiratory organs are removed sufficiently far from the head to admit of respiration going on, while the animal is so employed."

Among the various substances dangerous to human life to which recent inquiry has been directed, is, the poison peculiar to certain fishes. The observations of Mr. Burrows on this singular and hitherto little investigated subject, tend, at least, to the dispersion of pre-existing errors, as to the cause of this property in fish; and, so far, will facilitate further inquiries. The hypothesis of Dr. Chisholm, that the base of this animal poison was cupreous, which was supported by very plausible reasoning in the elaborate and ingenious dissertation of that industrious and learned physician on the subject, is now acknowledged by him to be erroneous*. He candidly states, that, "having brought to England some of the argillaceous stone of Antigua, tinged with green, and thence supposed to be impregnated with copper," it was submitted to the experiments of a very skilful chemist, when no trace of that or was detected; but there was a precipitate possessing the qualities of sulphate of barytes.

Upon this result, Dr. C. says, the gentleman who made the experiment suggests, that "the affinity of muriate of soda to barytes is very great, and facilitates the solubility of the latter in water. Hence, considering the ponderosity of barytes, we perceive readily enough why the solution in sea-water should remain stationary, immediately over the surface of the rock containing the barytes; and why it should not be affected by currents and tides. Now as all fish feed near, or at the bottom, those resorting to the tracts of the sea superincumbent to such rock, receive a large portion of this solution into their bodies. And as all fish contain water in an uncombined state, in a much larger proportion than any other class of animals, it follows that this solution, after being received into their bodies, may be therein retained without affecting the living principle of the animals themselves, although it gives them a capacity, when they become the food of man, of acting on their systems as a violent poison." How far, Dr. C. adds, these may be "words without knowledge," he will not take upon himself to say.

However unsatisfactory this reasoning may be; for how does it account for the fact, that a fresh fish shall be entirely innocuous, and be on the following day virulently venomous? yet it is but just, where so much obscurity prevails, to publish the theories the learned may offer as a guide to investigation*.

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* This information is contained in a letter from Dr. Chisholm to Mr. Burrows.

† The Report to the Royal Institution of France, and to some medical societies of Paris, by *Professor Hallé*, and by other physicians,

In adding, Dr. Parry's Elements of Pathology and Therapeutics*; Mr. Highmore's Case of a Fœtus found in the Abdomen of a Young Man†; and Dr. Phillip's of one found in that of a Child‡; with a second edition of Dr. Hunter's large

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on Mr. Burrows's paper on Fish Poison (vide *Repository*, vol. iii. p. 445), and the interest it has excited in several parts of Germany, lead to the hope that the inquiry will be successfully pursued. And this expectation is the more confident, from a communication of the learned and ingenious *M. Orfila* to the author; who expresses his determination to make it the particular object of his researches in a voyage he meditates. *M. le Docteur Roche*, in his Report to the *Athenèe de Medecine*, finding no synonym for Fish Poison in the French language, has named it, "*Le Poison Ichthyque.*"

* Elements of Pathology and Therapeutics; being the outlines of a work intended to ascertain the Nature, Causes, and most Efficacious Modes of Prevention and Cure of the greater Number of Diseases incidental to the Human Frame. By Caleb Hillier Parry, M.D. F.R.S. &c. vol. i. 8vo. pp. 463. London, 1815. As we shall soon review Dr. Parry's work, we at present merely extract the Recapitulation with which the volume concludes, from which some idea may be formed of the doctrines he supports.

"First, that the far greater number of the diseases incidental to the human frame depends, at some point or other of that succession of antecedent circumstances which constitutes the chain of causes, on excessive momentum of blood, whether local or general.

"Secondly, that this momentum is not, necessarily, always excessive absolutely; that is, in relation to the usual state of perfect health in the mass of mankind; but relatively to the state of the individual at the period given.

"Thirdly, that many of those movements, which constitute what is called disease, and which, for the time, produce disorder of the different functions, whether of body or mind, are, in reality, processes, the general tendency of which is to restore health and to prolong life; although, on particular occasions, their operation may be either deficient on one hand or excessive on the other; or may be even sometimes directed to parts which seem, as it were, unnecessarily implicated in the vain and fatal conflict."

† A Case of a Fœtus found in the Abdomen of a Young Man. By Nathaniel Highmore, Surgeon, Sherborne, Dorsetshire. 4to. pp. 30. two plates. London, 1815. For a review of this case, vide *Repository*, vol. iv. p. 403. We take this opportunity of noticing, what we neglected to state in our review, that Mr. Highmore, in his opinion of the causes of this phenomenon, has been anticipated by Mr. Simmons of Manchester, in his description of a case of monstrosity.—Vide *Medical Facts and Observations*, vol. viii.

‡ This case was reported by Dr. Phillip to the Royal Society. He conceives that the phenomenon originated from one fœtus being inclosed within another in the womb. Vide *Repository*, vol. iv. p. 165.

Plates of the Anatomy of the Human Gravid Uterus; we believe we have noticed all that has been done in this department of Medical Science within the period of our Retrospect.

CHEMISTRY.

None of the sciences has been so extensively cultivated as Chemistry; the rapidity of its progress has been commensurate with the number of its votaries; and there is scarcely any part of its march that is not marked by some important discovery. The assistance Medicine has derived from it is fully acknowledged; and thence it becomes part of our present duty to trace its advancement.

Much of the interest which it has excited, is undoubtedly due to the scientific form it has assumed within these fifty years, and to the perfection of its language; for, whilst the science consisted of isolated facts, and arbitrary terms were employed to express them, the want of generalization and system rendered the task of acquiring it difficult and repulsive: but as soon as the labours of Black, Cavendish, and Lavoisier established those general principles that led to the effulgence of brilliant discovery, which has distinguished the present era, and a methodical language was invented, the attractions of the science became irresistible. Every discovery of a new substance must still necessarily introduce new terms; but to alter the present language, merely because the principles upon which some of the terms were founded have been proved to be erroneous by more recent discoveries, would, in our opinions, be premature; and by the repetition of the changes that might thus progressively be introduced, ultimately lead to a confusion highly detrimental to the science.

We have been induced to make these remarks by having observed changes of nomenclature attempted to be introduced by some individuals in this country, but more particularly on the continent*. Were a change of chemical language even absolutely required, it certainly ought not to be the work of individuals.

The first circumstance which attracts notice, as connected with the general principles of the science, is a paper on crystallization, by Dr. J. R. Coxe, of Philadelphia†; who, from a series of experiments, concludes, that there is something "as yet not well understood," operative in this process, independent

* *Annals of Philosophy*, vol. vi. p. 232; and *Observations sur un Nouveau Tableau de Synonymie Chimique*; par M. Fougeron, Pharmacien à Orleans. *Journal de Pharmacie*, No. viii. p. 345.

† *Annals of Philosophy*, vol. vi. p. 101.

of temperature and atmospherical pressure. He found that saturated solutions of various salts, put into phials at a boiling temperature and corked, sometimes precipitated regular crystals as they cooled, but at other times remained fluid; in some instances they crystallized instantaneously on admitting the air; in others, after remaining exposed, did not crystallize even when "briskly shaken, and some time afterwards, without any apparent cause, have assumed the solid form." Both corked and uncorked solutions of Glauber salts, in some of the experiments, gradually deposited transparent firm crystals two inches in length; in others, irregular masses only at the bottom of the vessel—"the fluid above, in these cases, continuing clear and saturated; and when shaken, sometimes consolidating in the usual way." In short, sometimes atmospheric pressure seemed to operate, in others, not; agitation sometimes, but not invariably; and the whole series of experiments presented so many anomalies as to prevent any conclusion being drawn as to the causes of the various effects.

An experimental inquiry into the same subject, and on the effect of solutions on the structure of crystals, with a different view, has been instituted, in this country, by F. Daniel, Esq. F.R.S.* The object is to prove the truth of Dr. Wollaston's theory of molecular sphericity; which, Dr. Daniel conceives, demonstrates, and satisfactorily explains the structure of the octahedral crystal, as for example that of alum; but the rhomboidal crystal of carbonate of lime, and the quadrilateral prism of sulphate of magnesia, cannot be deduced from the arrangement of spheres. These forms, however, may be produced from cubes or oblong spheroids; and no other form of integrant molecules can account for the structure of crystals.

The subject of crystallization, in every respect, is one of very considerable interest, and merits further investigation.

Nothing can illustrate in a more striking manner the high degree of perfection to which Chemical Science is approximating, than the knowledge which has already been acquired regarding the nature of the substance named *Iodine*†, and its relations with other bodies. Much of what has been discovered

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* Mr. Daniel's paper was read to the Royal Society on the 16th and 23d of November last.

† Iodine was discovered in 1811, and the first account of it read to the French Institute in 1813 (vide *Repository*, vol. i. p. 218). The best general details regarding it are to be found in the following works—Annales de Chimie, t. lxxxviii, p. 319, 320. Ibid. t. xci. Journal de Physique, Août 1814. Bulletin de Pharmacie, t. vi. Journal de Pharmacie, Janvier 1815. Annals of Philosophy, Nos. 28, 30, 32, 33.

on this subject is due to Sir Humphrey Davy, who, in prosecuting his inquiries, has lately succeeded in combining oxygen and iodine*. To produce this effect, euchlorine and iodine must be brought together at the ordinary temperature of the atmosphere: an immediate action ensues, the compound assumes a bright orange colour, and a liquid is formed. "When the euchlorine is in sufficient quantity, a white substance likewise appears. By the application of a gentle heat, the orange compound of chlorine and iodine may be made to rise in vapour; and the compound of oxygen and iodine remains." This compound may be obtained dry, by previously passing the euchlorine through dry muriate of lime.

The compound of oxygen and iodine thus obtained, is a white semi-transparent solid; inodorous, and having a strong astringent sour taste. Its specific gravity exceeds that of sulphuric acid. It is decomposed by a heat rather under 600° Faht. and is entirely converted into pure oxygen gas and solid iodine; the oxygen being in the proportion of 191 grain measures in one grain of the compound. It is deliquescent and very soluble in water, the solution first reddening, and then destroying vegetable blues, and reduces other vegetable colours to a dull yellow. It detonates when heated with combustible bodies; and its solution acts upon all the metals. With the alkalies and alkaline earths, it forms oxyiodes or triple compounds of their metallic bases with oxygen and iodine. It also forms compounds with the metallic oxides, and precipitates of lead and mercury from their nitrous solutions.

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* *Some Experiments on a Solid Compound of Iodine and Oxygen, and on its Chemical Agencies.* By Sir Humphrey Davy, LL.D. F.R.S.—*Phil. Trans.* 1815. Part ii. p. 203. In the early stage of the investigation of iodine it was regarded as not being capable of combining with oxygen at any temperature; but the experiments of Gay Lussac ascertained that under some circumstances, in decomposing, for instance, oxiode of barium by sulphuric acid, it unites with oxygen in a nascent state, and forms an acid which he named *iodic*. The acid thus obtained is combined with water, but by evaporation is rendered of the consistence of syrup. Its taste is very acid; and it unites with all the salifiable bases. Its constituents, according to Gay Lussac, are—*Iodine*, 100·0000—*Oxygen*, 32·0085. Sir H. Davy objects to the name *iodic*, which he conceives is equally applicable to hydroiodic and chloroiodic acids; and to the iodates proposed by Gay Lussac he also objects, as placing the *oxyiodes* in the common class of neutral salts, from which they differ in many respects.

Among the other singular properties of iodine, is that discovered by Dr. Brewster, of polarizing the light reflected by it in two opposite planes, a property peculiar to metallic bodies.

This compound unites with the acids, forming crystallized sour compounds, which redden vegetable blues, and dissolve gold and platinum; but with liquid muriatic acid it is decomposed, and the compound of chlorine and iodine is formed.

Sir H. Davy proposes to name this new compound *oxyiodine;* and the acid compound it forms with water, *oxyiodic* acid.

*Chlorine.*—Since the period that Sir H. Davy discovered that oxymuriatic acid was a simple body, which he denominated *Chlorine:* this substance has very much excited the attention of chemists. In pursuing his inquiries, and having learnt that Gay Lussac, by the action of sulphuric acid on hyperoxymuriate of baryta, had obtained a peculiar acid which he named chloric acid, Sir Humphrey was led to examine the action of acids on the hyperoxymuriates under new circumstances*. He found that when 30 or 40 parts of sulphuric acid are added to one of hyperoxymuriate of potassa, the acid is tinged deep orange, and white and orange fumes, having a peculiar, not disagreeable, odour, are exhaled. This coloured gas destroys moist vegetable blues without previously reddening them: when heated to 212° it explodes violently, producing much light; and leaving rather less than three volumes (from 2·7 to 2·9) for two of the gas decomposed; and of these, two are oxygen, and the remainder chlorine. Phosphorus decomposes this gas with an explosion, and burns in the liberated gases with great brilliancy. Water absorbs it and acquires a deep yellow colour; but although the solution is extremely astringent and corrosive, yet it does not taste sour.

The action of hydro-nitric acid (nitric acid) on the hyperoxymuriate affords the same gas as above described. The white fumes probably consist of a hydrate of the gas.

Sir H. Davy states that "although this new substance contains four proportions of oxygen, yet it is not an acid;" and hence it is probable that the acid fluid compound of oxygen, chlorine and water, called *chloric acid* by Gay Lussac†, owes its acid powers to combined hydrogen: and he conceives that until a pure combination of chlorine and oxygen is obtained, "possessed of acid properties, we have no right to say that chlorine is capable of being acidified by oxygen, and that an acid compound exists in the hyperoxymuriates."

Under the idea, however, that Gay Lussac's opinion is correct, *M. Vauquelin* has published some observations on chloric acid and its combinations‡. But the results of his experiments

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* *Phil. Trans*, 1815, Part ii. Art. xiii.

† *Annales de Chimie*, tom. xci. ‡ *Ibid.* tom. xcv. p. 91, 113.

with many of the metallic chlorates, rather tend, in our opinion, to confirm Sir H. Davy's position: the following, however, are the conclusions he deduces from them: "1. That the metals which decompose water, also decompose chloric acid, and form with it oxygenated chlorures. 2. As chlorine combines with some of the metallic oxides, without disengaging oxygen, consequently it exists in oxygenated chlorures. 3. That hydrochloric acid combines with certain metallic oxides without decomposing them; as, for instance, those of the metals which decompose water. 4. The greater part of the chlorates decomposed by heat, yield, either a mixture of a chlorure and a portion of the base in a free state, or a sub-chlorure; which seems to demonstrate that oxygen contributes partly to the saturation of the bases. 5. That the chlorures resulting from the decomposition of chlorates procured from protoxides, are always at a *minimum* of acid; but that those made with the peroxides are always at a *maximum*; consequently chloric acid does not appear to follow in its combinations the proportions of oxygen contained in the bases."

*Azote.*—Berzelius has regarded *ammonia* as an oxide; "because, in its combinations with acids, it follows the same law as metallic oxides; but this conclusion is denied by Gay Lussac, who, however, conceives that we should consider *azote* as approaching by its properties to the nature of oxygen, chlorine, and iodine, and that like them it may acidify a certain class of bodies."

*Cyanogen.*—This name has been given, by Gay Lussac, to a new substance discovered by him. It is the radicle of prussic acid, which, he asserts, is like the muriatic and the hydriodic acids, a compound of a radicle with hydrogen, or a *hydracid**. Cynanogen is obtained by decomposing cyanure of mercury† *(prussiate of mercury)* in a very dry state, in a glass retort, by the heat of a lamp. It comes over in the form of gas, and must be received over mercury. It is a permanently elastic gas; with a strong penetrating odour; soluble in water, to which it affords a sharp taste; and is inflammable, burning with a blueish purple flame. Its specific gravity is 1·8064. It is not decomposed in a very high temperature; water dissolves 4½ volumes of it, pure alcohol 23 volumes; and sulphuric ether and spirit of turpentine at least as much as water. It reddens infusion of litmus; but when the mixture is heated, the gas is disengaged, mixed with

* *Annales de Chimie*, tom. xcv. p. 136. *Repository*, vol. iv. p. 518.

† A perfectly neutral crystallized cyanure is obtained by digesting red oxide of mercury with prussian blue.

a little carbonic acid, and the blue colour of the litmus returns. By the heat of a spirit lamp, phosphorus, sulphur, and iodine may be volatalized in it without suffering any change. Copper and gold do not combine with it; but iron partly decomposes it at a nearly white heat. In the cold, potassium does not act upon it; but when heated, it absorbs a portion of it equal to the bulk of hydrogen it can separate from water. This combination is yellow, and manifests alkaline properties.

Cyanogen detonates violently, giving out a blue flame; when fired with twice its bulk of oxygen gas, the residue is carbonic acid gas, and azote. It combines with several of the metals; also, with the alkalies and alkaline earths; decomposing rapidly the carbonates at a low temperature, and forming cyanures with the oxides. One volume of cyanogen united with an alkali, and afterwards decomposed by an acid, yields exactly—one volume of carbonic acid gas, one volume of hydrocyanique vapeur, and one volume of ammoniacal gas*.

*Sulphur.*—*M. Dobereiner*, by a process which he has not yet described, has deprived sulphur of its hydrogen, and obtained it in the form of a blue powder similar to ultramarine†.

The METALS at all times have attracted the attention of chemists; and it is probable that the list of those already known may be still much augmented. Many of the properties of their oxides are yet but imperfectly understood: Vogel has lately ascertained, that several of them are decomposed by sugar‡; a fact which developes the cause of the antidotal influence of this substance, when exhibited in cases of poisoning by verdigris.

*Gold* and *Silver.*—Dr. Brewster has remarked that these metals possess the singular property of producing colours by the successive reflection of polarized light, which are complementary to each other. This observation has been verified by M. Biot.

*Mercury* §.—An amalgam of mercury with hydrogen has been obtained by *M. Dobereiner*, by decomposing water in contact with that metal by means of the Galvanic battery. This amalgam is solid, and not decomposed by agitation; but, when heated, it is resolved into running mercury and hydrogen||.

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* We shall take an early opportunity of presenting our readers with a translation of the interesting paper, from which these extracts have been made.

† *Ann. of Philos.* vol. vi. p. 234. ‡ *Journ. de Pharm.* No. iv. p. 241.

§ From an account of the quicksilver mines of Idria, in Illyria, by *M. Paysse* (*Annales de Chimie*, tome xci. p. 161), it appears that these mines, from the 1st of January 1810, to September 1813, yielded 17·076 quintals and 54 pounds of this metal.

|| *Annals of Philosophy*, vol. vi. p. 234.

The same chemist has announced the existence of a native compound of mercury and sulphuret of carbon*.

Vogel states that when peroxide of mercury is boiled with a solution of sugar, it loses its intensity of colour, and is reduced to the state of a blackish powder, which is a mixture of the black and red oxide†.

*Lead.*—Vogel has also examined the nature of the action of sugar upon the oxides of this metal‡; and found that they form with it compounds insoluble in water: manna produces nearly the same effect. Sugar partially reduces the brown oxide of lead; with which oil of turpentine enters into chemical combination.

*Nickel.*—A new ore of this metal has been lately analyzed by Dr. John, and the following given as its constituents.

| | |
|---|---|
| Nickel | 23·33 |
| Antimony, with arsenic, and a trace of iron | 61·68 |
| Sulphur | 14·16 |
| Unknown body, probably lead or silver, with silica | 0·03 |
| | 100·00 |

From its containing antimony, it has been named *Nickel-antimonere*§.

*Bismuth.*—The carbonate has been recently discovered as an ore, in Cornwall. Its specific gravity is 3·0755; which is less than that of the *bismuth ochre* of the Germans; but the colour, fracture, and lustre, are similar‖.

*Tungsten.*—Among other results of a series of experiments on this metal and its oxides, by Professor Bucholz¶, it appears that besides the yellow and dark-blue oxides of this metal, there exists another intermediate to these, of a dark brownish red or reddish brown colour. "It may be obtained by the application of heat to the tungstate of ammonia, in consequence of the deoxidizing property of the ammonia."

The ACIDS, perhaps, more than any other set of bodies, have lately particularly excited the attention of chemists. The opinion that oxygen is the acidifying principle is becoming less general; and the suggestion of Sir H. Davy, founded on the fact that the compounds formed by the union of iodine and of chlorine with hydrogen possess acid properties, "that acidity does not depend upon any *peculiar* elementary substance, but

* *Annals of Philosophy*, vol. vi. p. 237.

† *Journal de Pharmacie*, No. vi. p. 252. ‡ *Ibid.* No. vi. p. 260.

§ *Annals of Philosophy*, vol. vi. p. 154. ‖ *Ibid.* vol. vi. p. 236.

¶ *Schweigger's Neues Journal fur Chemie und Physick*, vol. iii. p. 1; and *Thomson's Annals*, vol. vi. p. 198.

upon *peculiar combinations* of various substances, is daily obtaining new votaries."

We have already noticed the error into which Gay Lussac has fallen, according to Sir H. Davy, in supposing that what he denominates *chloric acid* owes its acidity to oxygen.

*Chyazic Acids.*—M. Porrett having shewn* that the elements of prussic acid unite with black oxide of iron, and form a peculiar acid, which he named *ferruretted chyazic*; and which is the acid portion of the triple prussiates: and, also, that sulphur, when combined with prussic acid, alters its nature, and forms with it another acid, which he named sulphuretted *chyazic acid*: he has drawn up a table, shewing in what degree the results of his analyses coincide with the atomic theory of Dalton, and the law regulating the combination of oxidized bodies discovered by Berzelius†. The following is an extract shewing the composition of the above two acids:

*Analysis of ferruretted Chyazic Acid.*

| | | Prussic Acid. | Black Oxide of Iron. | Acid. |
|---|---|---|---|---|
| Analysis | per cent. | 63·79 | 36·21 | 100 |
| Theory | per cent. | 66·569 | 33·431 | 100 |
| | per atom | 4 atoms | 1 atom | 1 atom |
| | | 172·56 | 86·66 | 259·22 |

*Analysis of sulphuretted Chyazic Acid.*

| | | Prussic Acid. | Sulphur. | Acid. |
|---|---|---|---|---|
| Analysis | per cent. | 34·8 | 65·2 | 100 |
| Theory | per cent. | 35·0333 | 64·9667 | 100 |
| | per atom | 1 atom | 4 atoms | 1 atom |
| | | 43·14 | 80 | 123·14 |

*Prussic Acid.*—A most interesting series of experiments have been made by *M. Gay Lussac* on this acid: and an account of them published in the *Annales de Chimie*‡. His experiments were made with prussic acid obtained by decomposing prussiate of mercury by means of concentrated hydrochloric acid (muriatic acid), in quantity not sufficient to decompose the whole of the prussiate‖; and the application of a moderate heat.

* *Phil. Trans.* 1814. † *Ibid.* 1815, Part ii. p. 230.

‡ *Annales de Chimie*, 31 Août, 1815.

‖ The apparatus he employed was a small tubulated retort, to which was fitted a tube about six decimetres long, and a centimetre and a half in diameter within. One third of this tube, nearest to the retort, was filled with small pieces of white marble, to retain any hydrochloric acid that might inadvertently be allowed to come over; the other two-thirds contained melted chlorate (muriate) of lime, in small pieces, to condense the water that might be mixed with the prussic vapour. To the end of the tube a small receiver was adapted, and surrounded with ice, for collecting the acid.

Prussic acid thus prepared is a colourless, strong smelling liquid, with a taste at first cooling, then burning. It is sedative and poisonous in a high degree. Its gravity at 70 (45° Faht.) is 0·7058; at 18° (64° Faht.) it is 0·6969. It boils at 26°5 (80 Faht.) and congeals at 15° below the freezing point (5° Faht.) crystallizing regularly at that temperature, sometimes in fibres resembling nitrate of ammonia. The cold produced by it when converted into vapour is sufficient to congeal it, even in summer. The specific gravity of the vapour, by experiment, is 0·9476; but by the calculation of the combination and condensation of its elements 0·9360, which is perhaps the truth; 100 measures of the gas being mixed with oxygen at 72°, and detonated in Volta's eudiometer, consumed 125 measures of oxygen: 100 measures of carbonic acid were formed, and 50 of azote remained. From this analysis, prussic acid is composed of carbon 1 volume, hydrogen 0·5, and azote 0·5, condensed into one volume: or, by weight,

| | |
|---|---|
| Carbon..... | 44·39 |
| Azote..... | 51·71 |
| Hydrogen..... | 3·90 |
| | 100·00 |

Prussic acid, in this state, very soon spontaneously changes into prussiate of ammonia and an azoture of carbon, or a compound of carbon and azote. Phosphorus and iodine may be volatilized in it without altering it; but sulphur forms with it a solid compound. When potassium is heated in prussic vapour mixed with hydrogen or azote, the metal is converted into a spongy grey substance, which melts and assumes a yellow colour: this, when put into water, dissolves without effervescence, and presents the characters of simple prussiate of potass. It is, therefore, probable that prussic acid, like hydrochloric (muratic) and hydriodic (oxyiodic) acids is composed of a radicle (see *cyanogen*) combined with hydrogen. Prussic acid, also, as it is usually obtained, is, like the above-named acids, a *hydracid*, composed of equal volumes of cyanogen and hydrogen gas: hence Gay Lussac proposes to name it *hydrocyanic acid**.

*Hydrocyanic Acid.*—From a partial examination, Gay Lussac is of opinion that the oxides act upon this acid in the state of gas in the following manner. Those in which the oxygen is strongly condensed disengage hydrogen, and form cyanures of the oxide; but those in which it is feebly condensed, scarcely

* According to M. Porret's table, 1 atom of prussic acid is composed of 1 atom of azote, 2 atoms of carbon, and 8 of hydrogen; or 100 parts consist of azote 40·7, carbon 34·8, and hydrogen 24·5. *Phil. Trans.* 1815, Part ii. p. 250.

act upon it. The hydrocyanates are decomposed by the weakest acids, and bear some analogy to the hydrosulfates. When perfectly dry, they are not decomposed even in a high temperature; but when in contact with air or moisture, they soon change into carbonates of the oxides.

*Chloro-cyanic Acid.*—Gay Lussac thus names the oxy-prussic acid of Berthollet; and has ascertained that it is composed of equal volumes of *chlorine* and of *cyanogen*. He procured it by passing a current of chlorine into a solution of hydrocyanic acid, until that acid acquired the power of destroying the colour of a solution of indigo in sulphuric acid. Any excess of chlorine was separated by agitating with mercury, and afterwards distilling with a moderate heat.

This acid is colourless, and its odour so sharp that it strongly irritates the pituitary membrane, and occasions tears. It reddens litmus paper, is not inflammable, and does not detonate when mixed with twice its bulk of oxygen or hydrogen. Its specific gravity is 2·111. Its aqueous solution does not precipitate nitrate of silver, nor baryte's water: the alkalies absorb it rapidly, but a great excess is requisite to destroy the odour. The addition of an acid converts the chlorocyanic acid into carbonic and muriatic acids; and an excess of lime to the acid solution disengages ammonia. The elements of chloro-cyanic acid are, 1 volume of vapour of carbon, ½ a volume of azote, and ½ a volume of chlorine*.

*Boracic Acid.*—Dr. Holland, in a visit to Lipari, found native boracic acid in considerable quantity attached to the sulphur, in the form of a white feathery covering, which is deposited from sublimate within the crater of the volcano†.

*Butteric Acid.*—This appellation has been given by *Chevreul* to a new acid obtained by him from whey‡.

*Sorbic Acid.*—The sour juice of the fruit of the sorbus *aucuparia* had attracted the attention of the celebrated *Scheele*, who pronounced its acid to be the malic. Mr. Donovan, in some experiments|| lately made upon that fruit, found Scheele's observation correct, as far as it relates to the green fruit of the sorbus, the juice of which consisted mostly of malic acid: but there was besides another acid formation, which he separated, and finding it to be a new acid, named it *sorbic acid*.

This acid, "when perfectly pure, is a transparent, colourless, and inodorous fluid, soluble in alcohol, and in any proportion of water." It forms, by evaporation, an uncrystallizable

* *Annales de Chimie*, tom. xcv. p. 200.

† *Holland's Travels into the Ionian Isles, &c.*

‡ *Repository*, vol. iv. p. 363. || *Phil. Trans.* 1815, Part ii. p. 231.

deliquescent mass; and, when distilled, gives over a fluid which afford no traces of acidity. The acidity of sorbic acid, however, is so extremely sharp, as to occasion a painful sensation on the palate. It is not decomposed by keeping; and "when mixed with malic acid, as in fruits, this acid (the malic) is the first to disappear, while the other retains its properties long after the commencement of decay in the plant." It appears to be intermediate between the malic and the oxalic acids: and is never found in mature fruits that contain any other than the malic; but in combination with which, it is found in apples, plums, the fruit of the sorbus, barberries, and sloes.

*Tartaric Acid.*—M. Tromsdorff has ascertained that this acid unites intimately with alcohol, forming a viscid matter resembling malic acid in its aspect, but not in its properties. By boiling this substance with a large proportion of water, the alcohol evaporates with the water, and the tartaric acid crystallizes*.

To this account of the acids, we have only to subjoin the following table, shewing the results of some new experiments by Berzelius, undertaken with the view of determining the composition of the vegetable acids†.

| | | | |
|---|---|---|---|
| Oxalic Acid..... | Oxygen..... | 66·211 or in volume | 6 |
| | Carbon..... | 33·021 ——— | 4 |
| | Hydrogen... | 0·728 ——— | 1 |
| Tartaric Acid.... | Oxygen..... | 59·882 ——— | 5 |
| | Carbon..... | 36·167 ——— | 4 |
| | Hydrogen... | 3·751 ——— | 5 |
| Saclactic Acid ... | Oxygen..... | 60·818 ——— | 8 |
| | Carbon..... | 34·164 ——— | 6 |
| | Hydrogen... | 5·018 ——— | 10 |
| Acetic Acid..... | Oxygen..... | 46·734 ——— | 3 |
| | Carbon..... | 46·871 ——— | 4 |
| | Hydrogen... | 6·195 ——— | 6 |
| Succinic Acid.... | Oxygen..... | 48·080 ——— | 3 |
| | Carbon..... | 46·871 ——— | 4 |
| | Hydrogen... | 4·520 ——— | 4 |
| Citric Acid..... | Oxygen..... | 55·072 ——— | 3 |
| | Carbon..... | 41·290 ——— | 3 |
| | Hydrogen... | 3·634 ——— | 3 |
| Benzoic Acid..... | Oxygen..... | 20·000 ——— | 3 |
| | Carbon..... | 27·740 ——— | 15 |
| | Hydrogen. . | 5·2[illegible]0 ——— | 12 |

* *Journal de Pharmacie*, No. v. p. 21.

† *Schweigger, Journal fur Chemie und Physik*, x. ii. p. 246.

No part of Chemistry is more interesting, although none presents greater difficulties in obtaining accurate results, than the Analysis of Mineral Waters. The only important investigation of this nature, within the period to which our notices are limited, is the analysis of the Dunblane and Pitcaithly springs, by Dr. John Murray*. The correctness of the results are obvious; but this analysis excites peculiar interest, inasmuch as Dr. Murray has succeeded in establishing the principle, that when sulphate of lime is found in waters containing muriates, it is rather to be regarded as a product of the operation than an original ingredient. In the Dunblane water, for instance, in which the ingredients are muriate of soda, muriate of lime, and sulphate of lime, agreeably to the analysis, it is probable that "the sulphuric acid may exist rather in the state of sulphate of soda, and when in the progress of the evaporation the liquor becomes concentrated, this salt may act on a portion of the muriate of lime, and by mutual decomposition form corresponding portions of muriate of soda and sulphate of lime." As muriate of lime is a very active remedy, this explanation enables us to account more readily for the efficacy of waters which contain it, than if we admit sulphate of lime to be actually present.

The following is stated by Dr. Murray as the solid components in a pint of the water of each of the Dunblane springs.

| North Spring. | | South Spring. | |
|---|---|---|---|
| Muriate of soda... | 24 grains | Muriate of soda... | 22·5 grains |
| Muriate of lime... | 18 | Muriate of lime... | 16 |
| Sulphate of lime... | 3·5 | Sulphate of lime... | 2·3 |
| Carbonate of lime. | 0·5 | Carbonate of lime. | 0·3 |
| Oxide of iron..... | 0·17 | Oxide of iron..... | 0·15 |
| | 46·17 | | 41·25 |

The same quantity of the Pitcaithly water yields, independent of 0·5 cubic inch of atmospheric air and 1 cubic inch of carbonic acid gas which it also contains,

| | |
|---|---|
| Muriate of soda..... | 13·6 |
| Muriate of lime..... | 19·5 |
| Sulphate of lime..... | 0·9 |
| Carbonate of lime..... | 0·3 |
| | 34·3 |

* Analysis of the Mineral Waters of Dunblane and Pitcaithly; with General Observations on the Analysis of Mineral Waters, &c. By J. Murray, M.D. F.R.S.E.—*Trans. of the Roy. Soc. of Edin.* 1815.

The Pitcaithly waters have long been celebrated as a saline purgative; and the Dunblane springs may be employed for the same purpose. Dr. Murray is also of opinion, that, by diluting the water of the Dunblane springs with a requisite proportion of hot water, so as to avoid the operation on the bowels, a stimulant operation on the stomach and general system might be obtained from them, similar to that of the Bath waters.

Vegetable Chemistry has yet all the charms of novelty, and we regret that the length to which the chemical portion of our Retrospect has already extended, prevents us from giving little more than simple notices of a few of the more important improvements in this department of the science.

*Sugar of Starch.*—It was long since ascertained, that the proximate products of vegetables were combinations of the same ultimate principles, variously modified by the circumstances of the plants. This fact had been demonstrated by analysis; but the synthetical proof was attempted in vain, until Kirchoff made known his method of converting starch into sugar. This discovery naturally excited the attention of chemists; and various theories were formed to explain the manner in which the sulphuric acid operates in producing the change. Professor De la Rive of Geneva, ascertained, that the sulphuric acid is neither decomposed nor united with the starch as a constituent; and Vogel suggested, that it acts merely by uniting together a portion of the oxygen and hydrogen of the starch, and converting them into water. To elucidate these points, *M. Theodore de Saussure* endeavoured to determine whether the sugar formed was of a less weight than the starch from which it was produced; and the result of his experiments demonstrated, that instead of any thing being lost by the starch, 100 parts of this substance yields 110·14 parts of sugar*. That none of this increase, however, is due to the sulphuric acid employed in the process, was satisfactorily proved by precipitating it from the filtered liquid employed in the process by barytes water, the sulphate of barytes obtained being equivalent to all the sulphuric acid employed; and hence this chemist concludes, that starch sugar is nothing else than a

* To make the sugar, he boiled 400 grammes of distilled water mixed with 2·4 grammes of sulphuric acid, and added to it, while boiling, in different portions, 100 grammes of starch, previously mixed with 200 grammes of water, constantly stirring the mixture. After the solution was complete, it was kept for 42 hours over an argand lamp, in a heat never exceeding 199°. The whole was then filtered, and the fluid, being freed from sulphuric acid by barytes water, was evaporated to the consistency of a thick syrup, and left at rest. It furnished a yellowish sugar.

combination of starch with water in a solid state, the sulphuric acid acting no other part in the process "than to promote the fluidity of the aqueous solution of starch, and thereby facilitate its combination with water*."

The analysis of sugar of starch gave the following results:

| | | | | |
|---|---|---|---|---|
| Carbon..... | 37·29 | or | Water..... | 58·44 |
| Oxygen..... | 55·87 | | Oxygen in excess... | 4·26 |
| Hydrogen... | 6·84 | | | |
| | 100 | | | |

The *sugar of grapes* is composed of very nearly the same proportions of ingredients; but that of the sugar-cane and the beet differ, by containing a greater proportion of carbon.

*Sugar as a Chemical Agent.*—Vogel, with many other chemists, having observed, that in the preparation of the *unguentum Ægyptiacum*, (linimentum æruginis, P. L.) the mixture becomes brown by long ebullition, was induced, with the view of ascertaining the cause of this effect, to undertake a series of experiments, which led him to regard sugar as the most powerful of all the substances which are capable of decomposing the metallic oxides†. The following are the conclusions deduced from the results of his experiments:

1. Sugar decomposes acetate of copper; the acetic acid is disengaged, protoxide of copper precipitated, and the supernatant liquid is a solution of proto-acetate of copper. 2. Sugar of milk, honey, manna, and the other species of sugar, possess in a certain degree this decomposing property. 3. Gum arabic does not decompose this acetate of copper; and the sweet principle of scheele (le principe doux), gelatin, fat, and wax, decompose it only in a very imperfect manner. 4. Sulphate of copper is decomposed by sugar, but instead of the protoxide, metallic copper is precipitated; all the other species of sugar, including manna, produce nearly the same effect. 5. Nitrate and muriate are not thrown down in the state of protoxide by sugar; but salts are formed with a base of protoxide. 6. Salts, the metallic bases of which decompose water, as iron, zinc, tin, and manganese are not decomposed by sugar. 7. Nitrate of mercury is reduced by sugar; calomel is not sensibly altered, but corrosive sublimate is brought back to the state of calomel, and the acetate of protoxide of mercury is

* *Annals of Philosophy*, vol. vi. p. 424, into which Saussure's Paper is translated from Gilbert's Annalen. vol. xlix. p. 129.

† *Journal de Pharmacie*, No. vi. p. 241. Vogel's Essay, which was read at the *Institute de France* on the 23rd January 1815, is intitled, "*De la force décomposante du principe sucré sur les sels et sur les oxides metalliques.*"

reduced to proto-acetate of mercury by means of sugar. 8. Nitrate of silver and muriate of gold are readily decomposed by sugar. 9. Peroxide of mercury is reduced to the state of protoxide by sugar and manna. 10. The oxides of lead are very soluble in a solution of sugar and of manna; but sugar, and sugar of milk in combining with them, form compounds wholly insoluble in water. 11. Sugar partially deoxidizes the brown oxide of lead; and oil of turpentine forms a chemical combination with oxide of lead. 12. It is probable, that in all these de-oxidations water is formed by the hydrogen of the sugar uniting with the oxygen of the metallic oxide, if we advert to the analogy of the action of the volatile oils upon the oxides.

*Inulin.*—M. H. Gaultier de Claubry has examined with care the principle found in the inula *helenium*, first noticed by Rose, and named inulin by Dr. Thomson. The characteristic distinctions between it and starch, are clearly pointed out; and the conclusion is drawn, that it "is a peculiar substance, differing from every other known vegetable substance, and which ought to be classed among the proximate principles of vegetables*."

*Caoutchouc.*—This vegetable product, well-known under the name of gum elastic, has been discovered by *Dr. John* as a component in the milky juice of several European plants.

1. Leontedon *taraxicum*. The components of the juice of this plant are water, caoutchouc, bitter extractive, a sweet substance, a trace of resin, a trace of gum, an acid, muriate, phosphate, and sulphate of lime, and an alkali.

2. Lactuca *sativa*. The constituents of the juice of this plant resemble that of the former; but it is probable, from its soporific powers, that it also contains a narcotic principle similar to that which exists in opium.

3. Ficus *carica*. The twigs of the fig-tree yield a milky juice, which, when dried, has the consistence and lustre of wax. The constituents are, caoutchouc; resin, soluble only in boiling alcohol; a trace of extractive, soluble in water; salts.

4. Platinus *occidentalis*. The milky juice of the bark and wood of the plane tree, when young, contains water; resin, soluble in boiling alcohol only; caoutchouc; a very small quantity of gummy matter; phosphoric acid; salts.

*Roots of Curcuma.*—*Vogel* and *Pelletier* have subjected these roots to a chemical examination, and obtained the following results:

1. A ligneous matter. 2. An amylaceous fecula. 3. A peculiar yellow colouring matter. 4. A brown colouring mat-

* *Repository*, vol. iv. p. 149.

ter, analogous to that of many extracts. 5. A small portion of gum. 6. An odorous, very acrid, volatile oil. 7. A small quantity of muriate of lime.

ANIMAL CHEMISTY has lately excited much of the attention of chemists. Its importance in physiology and pathology must always obtain for it a permanent interest with the medical philosopher.

*Fat.—M. Chevreul* has continued his investigation into the chemical nature of *fat bodies*, and their combinations with *alkalies* and *other salifiable bases*, in a fourth* and a fifth† memoir. It is remarkable, he observes, that magnesia, which so closely resembles the alkalies in other respects, does not convert fat or lard into soap, although it has a certain affinity for that substance, and unites with it, forming a homogeneous substance. From the results of his experiments, he conceives the salifiable bases may be arranged into three classes, according to the manner in which they act upon lard: 1. those, the alkalinity of which is powerful enough to convert lard into oily acids; 2. those which, like magnesia, unite with it without changing its nature; 3. those which do not contract any chemical union with it, but form a mixture, separating again when put into boiling water.

*Adipocire.*—The fifth memoir of Chevreul treats of the substance named adipocire, of which the crystallizable part of biliary calculi, spermaceti, and one portion of the fatty substance into which dead bodies, under certain circumstances, are converted, have been regarded as varieties. Chevreul's experiments, however, demonstrate that that opinion is incorrect.

He regards adipocire as characterized, 1. by its entire solubility in boiling alcohol, in all proportions; 2. by that solution reddening litmus; and, 3. by its uniting readily with potass, not only without losing any of its weight, but without its fusibility and other properties being changed. Thence, he concludes, that biliary calculi and spermaceti may be actually regarded as immediate simple principles; but adipocire, properly so called, is the result of the combination of two different fat bodies, one of which is allied to *margarine*, and the other to fluid fat. Such being the case, the following are the distinguishing characteristics of these substances:—The fusion of biliary calculi requires a temperature of 137° centig. whilst spermaceti melts at 44·68. As to the fusion of the adipocire of carcases, it varies from 44 to 45, according to the proportions of its constituents. One hundred parts of boiling alcohol dissolve 18 of biliary calculus; 6·9 of spermaceti; and adipocire in every proportion. Five parts of potass boiled on

* *Annales de Chimie*, tom. xciv. p. 226. † *Ibid.* xcv. p. 5.

one of biliary calculus for five days, does not saponify it: and 18 parts of the same alkali boiled in 30 of spermaceti for five days changes it completely into soap: whilst adipocire, as already stated, unites readily with the alkali in all proportions.

*M. Braconnot* has, also, lately examined the nature of fatty bodies, both animal and vegetable; and ascertained that all of them are composed of two distinct substances; 1. a liquid oil; and, 2. a solid substance, resembling wax or pure suet, or rather, the wax of the myrica *cerifera**.

*Biliary Calculi.*—Chevreul, in examining these bodies, with the view of ascertaining the nature of the crystallized matter they contain, discovered a minute portion of silex and of iron in those employed in his experiments†. In some of an uncommon species examined by Mr. A. T. Thomson, an exterior crust with which they were covered consisted chiefly of *carbonate of lime*, a fact perfectly new in the history of these concretions‡. Indeed, although carbonate of lime has been found in expectorated concretions, and in some generated in diseased glands, yet, it has been very rarely detected as a constituent of those formed in any of the natural cavities. Dr. John, however, observed it in a concretion taken from the uterus§.

*Saliva.*—Dr. Thomson, having lately had an opportunity of examining this fluid excreted during a mercurial course, thus describes it. Its specific gravity at 60° was 1·0038. It was so ropy as to be drawn into threads, but was not adhesive. Prussiate of potass and infusion of galls produced no change on it: nitrate of lead and nitrate of mercury threw down copious precipitates. 1050 grains evaporated to dryness left a residue of 7·5, which consisted of

| | |
|---|---|
| Coagulated albumen..... | 2·70 |
| Mucus (with a little albumen) ... | 3·85 |
| Common salt..... | 0·95 |
| | 7·50‖ |

*Urea.*—Mr. Rose had rendered it extremely probable that the urine of patients labouring under hepatitis contains no urea*; and he proposed it as a query, whether this deficiency might not "be a diagnostic mark between hydrocephalus *idiopathicus*,

* *Annales de Chimie*, tom. xciii. p. 225. For a translation of this interesting paper, vide *Repository*, vol. iv. p. 242, 335, 419.

† *Annales de Chimie*, tom. xcv. p. 9. ‡ *Repository*, vol. iv. p. 467.

§ *Annals of Philosophy*, vol. vi. p. 397.

‖ *Ibid.* vol. v. p. 424. * *Ibid.* vol. vi. p. 397.

and hydrocephalus *from altered function* of the liver? Mr. Rose's discovery has since been confirmed by Dr. Henry, of Manchester, who ascertained the fact by the examination of the urine of a female labouring under chronic hepatitis*.

*Uric Acid* has been found in the excrements of carnivorous birds; but in no instance has it been found in such a large quantity as in the excrement of a boa *constrictor*, analyzed by Dr. Prout. 100 parts of these excrements contained 90·16 of uric acid; but as the animal is kept confined, and in an unnatural state, this extraordinary quantity may, as Dr. Prout has suggested, arise from disease †.

The same industrious Experimentalist has also published his examinations of the *liquor amnii* of a cow, and the *colouring matter*, or ink, ejected by the cuttle fish.

1000 parts of the liquor amnii contained, of water 977 parts, albumen 2·6, substances soluble in alcohol 16·6, substances soluble in water, chiefly sulphate of soda, and other salts; also sugar of milk 3·8 parts.

100 parts of the cuttle fish ink contained, of a peculiar black colouring matter 78·00, carbonate of lime 10·40, carbonate of magnesia 7·00, muriate of soda and sulphate of soda 2·16, animal matter analogous to mucus 0·84, loss 1·60.

*Elephant's Tooth.*—Dr. John, having examined the fossile grinder of a Siberian elephant, found that it was composed of three distinct substances, the exterior of which only was completely petrified. He ascertained its constituents to be phosphate of lime, phosphate of magnesia, and fluate of lime‡.

Such is the sketch of the advancement of Chemical Science we have to present to our readers. Among the works, professedly on this science, lately published, we think it requisite

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* *Annals of Philosophy*, vol. vi. p. 392. Urea is discovered by adding to the urine condensed a solution of muriate of lime, and, if a precipitate subside, then dropping into the liquid a little muriatic acid, a brisk effervescence taking place when the acid comes in contact with the precipitate is decisive of the presence of *urea* in the urine.

† *Ibid.* vol. v. p. 413. This animal is exhibited near Exeter Change, and is fed once a month only, when it devours a rabbit, or sometimes two small ones. The excrements are voided at periods of about eight or ten days, in a softish state; but become hard and friable on exposure to the air.

‡ *Memoires de la Société Impériale des Naturalistes de Moscou*, tom. iii. p. 220.

to notice only Mr. Parks' Chemical Essays*, Aiken's Appendix to his Dictionary, and a new edition of Dr. Henry's Elements of Chemistry†.

NATURAL HISTORY.

M. Montegre has lately elucidated the natural history of the earth-worm, (*lumbricus terrestris*). He has demonstrated that there exist no exterior organs of generation in worms; but that in the act of copulation these animals apply themselves laterally to each other; so that that part of the upper extremity of each which is between the tenth and fifteenth rings is applied to the cincture‡ of the other; the medium of union being small papillæ, which act like suckers. In this state they remain for hours, a slight vibratory motion only being obvious. M. Cuvier imagines that the union of these animals is intended merely to produce in them a state of orgasm in which each individual fecondates itself§.

M. Montegre has also ascertained that earth-worms are ovo-viviparous. The generative organs consist of white bodies ranged on each side of the œsophagus, in which the eggs are formed and the fœtuses first developed. In the larger eggs found there, a black spot was perceptible, which appeared to be the first evolution of the fœtus. In all the worms he examined, about the beginning of August, he observed a great number of eggs, and some fœtuses, in a reservoir which is situated near the lower extremity, and opens near the anus; but after August the white bodies above described waste away, and the cincture disappears.

No doubts had hitherto arisen regarding the distinction of sexes in the *lamprey*, those that were full of ova having always been regarded as females, and those which appeared to have no ova as males. Sir Everard Home has satisfactorily proved that this opinion is erroneous, and that the lamprey, as well as the myxine, is an hermaphrodite animal||. All of them have an ovarium; on each side of which, at the commencement of the

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* *Chemical Essays*, principally relating to the arts and manufactures of the British Dominions. By Samuel Parks, F.L.S. 5 vols. 12mo. London, 1815. Baldwin.

† *Elements of Chemistry*, by W. Henry, M.D. New edition. 8vo. 2 vols. London, 1815. Baldwin.

‡ This is an enlargment of the body of every worm, apparent at certain periods only, between the 32d and 37th rings; it was denominated *bat* or *clitellum* by Willis.

§ *Rapport fait à la Première Classe de l'Institute, par M. M. de Lamarck et Cuvier, sur un Mémoire de M. de Montegre, &c.*

|| *Phil. Trans.* 1815. Part ii. p. 265.

breeding season, a glandular body projecting into the belly is perceptible. When the ova are very small, these bodies, and a black substance upon which they lie, appear to form one mass; but as the ova increase in size, "these glandular bodies become larger, more tumid, and have a distinct line of separation between them and the thick substance behind; their structure is more developed, being evidently composed of tubuli, running in a transverse direction, and the ducts leading from them are thicker in their coats and larger in size." When the ova are of a full size, the tubular structure increases in breadth, and the fluid in the ducts becomes ropy, or rather it consists of a transparent fluid full of small globules.

"The ova do not pass out at an excretory duct as in fishes, but drop from the cells in the ovarium in which they are formed into the cavity of the abdomen, and escape by two small apertures at the lower part of that cavity into a tube common to them and to the semen, in which they are impregnated."

*M. Dutrochet*, known for some interesting observations on the egg of the viper, in pursuing his inquiries, asserts, that in the frog, and this class of animals in general, the egg is a vitellus, the emulsive matter of which is contained in the intestine itself, which, at first globular, is elongated by degrees in a spinal tube, such as we see in the tadpole. The tadpole, he also asserts, does not throw off its skin in order to undergo a metamorphosis; but, that the anterior feet pierce the skin, that the jaws tear it, and the openings cicatrize*.

*M. Huber* has published a second volume of his Observations on Bees (*Nouvelles Observations sur les Abeilles*), a work which we think proper to notice; for, although, it appeared at Paris in 1814, yet, it is scarcely known in this country.

M. Huber has distinctly proved that wax is a secretion of the bee, produced in distinct receptacles under the abdominal scales. This secretion is procured only when the bee feeds on honey or syrup; and although it is produced by all the working bees, yet one set of them secrete it in greater quantity, and consequently devour much more honey than another set, who scarcely form any wax, and eat only honey enough for their own nourishment: the former are employed in building the cells, the latter in filling them with honey. The pollen of flowers, which was erroneously supposed to yield the wax, is collected for the purpose of feeding the larvæ.

It is proved, by dissection, that all the working bees are females; ovaria, analogous to that of the queen-bee, only destitute of ova, being found in them. The respiration of the bee

* *Annals of Philosophy*, vol. vi. p. 226.

is performed by means of stigmata opening on the corselet; and, as in all other animals, the presence of oxygen is necessary for carrying on this process, it is requisite constantly to renew the air of a hive. As there is only one aperture, this is accomplished by bees ranged in lines at the bottom of the hive, who perform a continued motion of the wings, producing an effect similar to a ventilator*. With regard to the senses, bees possess acutely those of sight, feeling, and smell; by the latter of which they are guided in finding their honey. They shew a great antipathy to camphor, turpentine, and some chemical agents; but appear indifferent to some of the odours which are most offensive to mankind. They appear to be little affected by sound; but, of all their organs, M. Huber thinks that of taste is least developed. Much of the instinct which bees appear to possess, particularly the knowledge of their queen, and their communications with her, depend on the sense of feeling through the antennæ; and when these are cut away, the bee seems to lose its instinct, desists from labour, remains at the bottom of the hive, and soon quits it altogether.

We regret exceedingly that our limits do not permit us to extract the entire description of the method in which the geometrical form of the cells is produced, for it does not admit of abridgment: but we may observe that the gloss which covers them, and the cement which unites their walls together and to the bottoms, is of the same chemical nature as the propolis or substance with which the hive is lined. Huber says it is a gum resin, and of vegetable origin. Upon the whole, this work displays a talent for observation and patient investigation rarely possessed; and the true explanation it has afforded of many of the hitherto mysterious functions of bees, proves that the more minutely the operations of Nature are inspected, the less we are disposed to admit the influence of instinct; yet the more we feel awed in admiring the boundless fullness of Omnipotent wisdom.

### BOTANY.

Although in Great Britain very little has been accomplished in this department of Science, yet it has attracted particular attention on the Continent. Much of this taste for botanical studies, particularly in France, is to be attributed to the exer-

* To ascertain whether the cause was adequate to the effect, M. Huber found that a lighted taper, introduced into a glass cylinder closed at both ends, continued to burn while the cylinder was ventilated through an aperture in the bottom, by means of an artificial ventilator consisting of a very small windmill of tin, with eighteen vanes; but it went out when the ventilator was not worked.

tions of Mirbel, Petit Thouars, Beauvois, Thiébaut de Berneaud, and a few other celebrated men of indefatigable industry and ardent enthusiasm; and not a little to the importance which the Royal Institute of France has bestowed on the papers presented to it on botanical subjects.

Of the elementary works which have appeared, none, since the time of Linnæus, has been equal, either in design or execution, to that of Mirbel's *Elemens de Physiologie Végétale et de Botanique**: and as the nature of the work does not admit of an abridgment within our limits, we shall take an early opportunity of laying before our readers an analysis of it: we will at present merely mention the titles of its various divisions. It is divided into two parts:—1°. The Principles of Vegetable Anatomy and Physiology—2°. Elementary Ideas of Botany.

The first part is subdivided into ten sections; the first of which treats of "the fundamental distinctions between the objects of natural history;" the second, "of the organic structure of vegetables;" the third, "of the seed, and of germination;" the fourth, "of the organs of preservation, and their functions;" the fifth, "of the chemical composition of the vegetable, and of its nutrition;" the sixth, "of the organs of generation, and their functions;" the seventh, "of fructification, and of the dissemination of the seed;" the eighth, "of the diseases and the death of vegetables;" the ninth, "of the cryptogamia and agamia;" and the tenth, "of some general circumstances connected with vegetation."

The second part is also subdivided into four sections. The first is intitled "Fundamental Theory" (*Théorie fondamentale*), and treats of those circumstances which enable plants to be classed in systematic methods, such as individual, specific, and generic characters; and of the principles of terminology: the second, "of the rise and progress of botany;" the third, "of methodical terminology;" and the fourth, "of the artificial and natural methods of classification."

On the subject of phytology, some curious observations have been published, in confirmation of his theory of vegetable philosophy, by M. Petit Thouars. These are contained in two dissertations, one on the sap, and the other on the progress of a plant from the seed to the termination of its natural life, under the whimsical title of *Histoire d'un Morceau de Bois*†.

Nothing gives more dignity and importance to science than

* *Elemens de Pysiologie Végétale et de Botanique, par C. F. Brisseau-Mirbel, de l'Institute.* 2 tom. Paris, 1815.

† *Histoire d'un Morceau de Bois, précédée d'un Essai sur la Sève, &c. par Aubert Aubert du Petit-Thouars, 8vo. Paris,* 1815.

when its discoveries tend to enlarge the means of existence, and add to the sum of our social comforts. In this point of view, we must notice the memoir on the cultivation of the *dahlias**, by Thiébaut de Berneaud. This genus, dahlia, belongs to the class *synginesia* of Linnæus, and the natural order *corymbiferi* of Jussieu. The plants, being natives of a hot climate, are naturally fond of warmth; but a little experience has proved, that they may be naturalized to this climate. Their roots, which are fusiform and give out tubercles, require a dry, warm, and light sandy soil; perishing, when exposed to too much humidity. They can be propagated, like the potatoe, both by their roots and their seeds, as well as by slips and layers. The flower is highly ornamental; but they are not to be considered merely as an addition to the parterre; but as of public importance in an economical point of view; their roots, which contain a large quantity of saccharine farinaceous matter, being well adapted for an article of diet; and equal in this respect to the potatoe and the Jerusalem artichoke, (helianthus *tuberosus*). When roasted, they lose an eighth part of their bulk; the skin is easily detached, and they have a slightly sweetish taste. They require more boiling than a potatoe; but thus prepared, lose none of their bulk, and acquire a flavour not unlike that of asparagus. The stems are relished by cattle, and afford a nutritive fodder.

As every addition to the quantity of food is a public benefit, we conceive *M. de Berneaud* is entitled to the thanks of society for the information contained in his memoir.

The same ingenious botanist has suggested an idea that the crambe *tartarica* is the *chara* of the ancients, the roots of which preserved the army of Cæsar from famine under the walls of Dyrrachium†.

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* The genus *dahlia* was first brought to Europe from Mexico in 1790; and named after Andrew Dahel, a Swedish botanist, by Cavanilles, the celebrated Spanish botanist, who first examined its characters. It was introduced into France by Dr. Thebaud in 1802; and within these few years, found its way into this country, where it is now by no means uncommon. The roots are perennial; but the stems are annual, growing to a considerable height, and bearing elegant radiated flowers, which make their appearance towards the close of autumn. Two distinct species only of the genus are yet known. 1. Dahlia *superflua*. 2. Dahlia *frustranea*; but there are many varieties of these species.—Vide *Mémoire sur la culture des dahlias, et sur leurs usages comme ornement des jardins et comme plantes économiques*, par Arsenne Thiebaut de Berneaud, 8vo. p. 20, Paris, 1812.

† *Repository*, vol. iv. p. 248.

Although the genus *Cinchona* supplies one of the most important articles of Materia Medica, very little is yet known of its species, or even of those which are supposed to yield the officinal barks. It has been suggested by Aylmer Bourke Lambert, Esq. that the yellow bark of the shops is obtained from the cinchona hirsuta of the *Flora Peruviana**. We will close this part of our subject by referring to Mr. A. T. Thomson's observations on the fructification of the Asclepras *carnosa*, in which the same common receptacle bears the inflorescence of several successive years; so that from being at first flat, it gradually acquires a conical form, bearing laterally the marks of each year's flowering. It is yet to be determined, whether this effect is natural to this plant, or merely an effort of Nature, under disadvantageous circumstances, to renew the species †.

### MATERIA MEDICA AND PHARMACY.

In this country, where fortunately new remedies are less sought after than the knowledge how to administer with advantage those already in use; and where the formation of a correct diagnosis is regarded as more valuable than the possession of a thousand nostrums, it is not surprizing that the additions to the *Materia Medica* are few, and occur at long intervals. On the Continent this is not the case; and, therefore, new remedies are more frequently brought forward.

*Malambo.—M. Cadet* has published an account of the *Malambo bark*, which has been recommended as a tonic and febrifuge‡. As the tree from which it is obtained has not been examined by any European botanist, the place in the Linnæan system to which the malambo belongs, is not yet ascertained; but M. Bonpland suggests, that from the bitterness of the plant it is probably related to the genus quassia or the Bonplandia *trifoliata* of Wildenow. It is a native of Choco and Antiochia, in New Granada, where it is named *arbol de agi*, on account of its hot and biting taste.

The bark is of a reddish ash colour, covered with a tough

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* *Annals of Philosophy*, vol. vi. p. 455. Mr. Lambert read a paper to the Linnæan Society, on Tuesday the 21st of November, describing a considerable number of specimens of cinchona, five of which were not referable to any known species, but appeared to be new. These specimens were given to Mr. Lambert by Mr. A. T. Thomson, who is in possession of a very large collection of specimens of cinchona, and who means soon to publish descriptions of any new species it may contain. Mr. Thomson intends at the same time to ascertain accurately the officinal species, by comparing the descriptions of authors with the specimens he possesses.

† *Ibid.* l. c. ‡ *Journal de Pharmacie*, No. 1, p. 20.

light-grey epidermis; its taste is very bitter, hot and pungent, and remains long upon the palate. The epidermis is more aromatic than the wood, which again is more bitter than the epidermis. When dried, it is easily pulverized; but the powder, on exposure to the air, runs together into little masses.

From the effects of re-agents upon its infusion, decoction, extract, and tincture, the malambo bark appears to contain an extractive colouring matter, devoid of astringency, and nearly of bitterness; a very bitter resin, amounting in quantity almost to the fourth of the weight of the bark; and a volatile aromatic principle. It contains neither tannin nor gallic acid.

The accounts of the medical virtus of the *malambo* bark are rather contradictory. Bonpland asserts, that at Santa Fe de Bogota, at Papayan and at Quito, it was not regarded as possessing any febrifuge virtues; but was found to be a useful tonic in dyspeptic affections; whilst *M. Zea* reports, that in the province of Santa Marta, it is employed for the cure of spasms, intermittents, and dysentery; and at the Havannah, had been successfully administered in trismus, a complaint to which the negroes are subject.

*Caryophyllus aromaticus.*—M. Tromsdorff has lately examined the nature both of the aromatic volatile principle and the solid part of the dried unopened flower-buds of the Eugenia *caryophyllata*, or cloves, as they are brought to Europe*.

By repeated distillations with water, 1000 grains of cloves yield more than one-tenth of their weight of pure volatile oil, which is at first colourless, but acquires a yellow colour, when exposed to the light. The solid part freed from the oil, and repeatedly boiled in different portions of water until the fluid remained colourless and insipid, left a residue which weighed 360 grains of a brown colour, and without smell or taste, and which, when treated with alcohol, afforded 60 grains of a yellow resin. What remained, was ligneous matter. The watery decoctions being evaporated to eight fluid ounces, deposited 40 grains, which consisted of a particular *extractive matter* mixed with a little *tannin*.

The remaining liquid, evaporated to the consistence of honey, and treated with alcohol, yielded a portion of gum also mixed with a little tannin; whilst there still remained in solution 130 grains of solid matter, which, on examination, proved to be tannin, differing however in some particulars from the tannin of gall-nuts.

From these experiments it appears, that 1000 parts of cloves are composed of, volatile oil 180, extractive, scarcely soluble 40, a particular species of tannin 130, gum 130, a peculiar resin 60, vegetable fibre 280, water 180.

* *Journal de Pharmacie*, No. 7, p. 307.

It is probable, that the whole of the virtues of the cloves depend on the volatile oil; which, in the aqueous infusion, the form generally adopted when cloves are medicinally exhibited, is held in solution by means of the tannin and the gum.

*Rhubarb.*—Dr. Rehmann, a Russian physician, attached to an embassy destined for Pekin under Count Golowkin, having remained some months at Kiachta, obtained the following information regarding this important root*. The rhubarb which is brought to Kiachta for Russia, and that which is bought by the English at Canton, are the production of the same species of plant†; but the best pieces only are selected for Kiachta, whilst that of every quality finds a ready market at Canton. The perforation in the Russian rhubarb is not made with the view of drying the roots upon lines, or on the horns of sheep, as has been erroneously stated; but in virtue of a contract between the rhubarb merchants and the Russian Government, by which the agent at Kiachta is enabled to examine the interior state of the root. The Boucharian rhubarb merchants arrive at Kiachta in October; and all the pieces which are rejected by the Russian agent, are burnt by virtue of the contract with Russia; hence the best only are brought to this depot‡.

The chief characteristic of the best rhubarb, besides solidity and weight, is a peculiar setting on edge of the teeth (*agacement*) on chewing it, similar to that produced by calcareous sandy particles. This effect M. Brenner ascribes to a species of selenite found in the pores of the root. The oldest roots are the deepest coloured; but little attention is paid to colour.

We have already noticed the employment which the Russians make of the tar of the Betala *alba*§; that the cactus *opuntia* has been extolled by Dr. *Brennecke* as a rubefacient‖; and *potassæ sulphuretum* successfully administered by Professor Serf as a sedative in croup*. The experiments also of Dr. Bigsby, which have been given to the public through the *Repository*†, are likely to fix the true value of Humulus *lupulus* as a narcotic; and prove, that if it possess any anodyne pro-

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* *Mémoires de la Soc. Imp. de Moscou*, tome ii. p. 126.

† The particular species has not yet been ascertained, although high bribes have been offered by the Russian agent to the Boucharians to bring seeds, or even a leaf of the plant. It is named *Dschun-sa* in Thibet; *Schara-modo*, or yellow wood, in Mongolia; and *Hai-houng* in China.

‡ The whole quantity received at Kiachta, in five years from 1802, was 4778 pouds 4 pounds; but, after being again picked and sorted, only 4632 pouds 18 pounds were transported to Petersburg.

§ *Repository*, vol. iv. p. 255.

‖ *Ibid.* p. 141.

* *Ibid.* p. 143.

† *Ibid.* p. 287.

perties, the quantity to be given must far exceed what has usually been regarded as the dose of that remedy, when administered in the form of extract or of tincture.

As no means can be adopted to prevent the *adulteration* of drugs, and our senses are very fallacious judges of their purity; the discovery of certain tests by which we may ascertain the purity of the substances employed as medicaments is a point of the utmost moment. *M. Bucholz* asserts, that a mixture of four parts of pure alcohol and one of rectified ether is well adapted for discovering the falsifications of balsam of Copiaiva. This balsam, when pure, dissolves wholly in the above mixture, which does not happen when it is adulterated with any fat oil, or with mastic*.

Catechu is sometimes adulterated by fecula; Mr. *L. A. Planche* has demonstrated that this is readily discovered by dissolving the catechu in cold water, and precipitating by a solution of isinglass. The purity of the catechu is determined by its solubility and the greater weight of the precipitate when dried. He found that of 100 parts of good Bengal catechu, 84 dissolve in cold water, and give a precipitate with solution of isinglass, which, when dried, weighs 135 parts†.

We have but little to notice in pharmacy since our last Report; however a new edition of the London Pharmacopœia has made its appearance. We will not recapitulate the remarks we have already made‡ on the few improvements brought forwards in this edition, and the errors which still deform it; but express our hope that a national pharmacopœia may still be projected and executed in a manner becoming the high character of the British Colleges of Physicians. The profession generally should be invited to assist in this great work; and when the communications and opinions of all have been collected, commissioners should be elected from each College, to meet in the metropolis, with full powers to avail themselves of the talents of any one, however unconnected with these learned bodies, who may be capable of aiding, either by a practical or theoretical knowledge of the subject, the perfection of the design.

In one department of pharmacy, from what has already been done by Mr. Battley, we anticipate a very important improvement. The specimens of dry vegetable powders which he has exhibited, and the extracts produced by him, are of a description likely to insure the confidence of the practitioner in this class of preparations||.

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* *Journal de Pharmacie,* No. v. p. 210. † *Ibid.* p. 211.

‡ *Repository,* vol. iv. p. 123. || For a description of Mr. Battley's method, vide *Repoitory,* vol. iv. p. 197.

It is scarcely necessary to observe, that, whatever can abridge the labour of making mercurial ointment, without deteriorating the preparation, is a desirable object. Among the various methods of manipulation which have been proposed with this view, none have held forth such high expectations as the use of *oil of eggs* lately adopted on the continent*. When mercury is triturated with oil of eggs which has been kept for some months, although it have no disagreeable odour, the metal in a few minutes spreads over the sides of the mortar in a thin layer resembling the amalgam on a looking glass; in a few minutes longer all the globules disappear, and after adding the lard and suet, the whole operation, which would require the labour of several days by the usual method, is completed in an hour. One drachm of the oil is sufficient to kill, as it is termed, eight ounces of mercury, the quantity requisite for making sixteen ounces of the ointment. As the oil of eggs is easily procured, it is certainly deserving the attention of the pharmacopolist.

*M. Poulet*, an apothecary at Marseilles, has proposed to prepare the acetate of potass, by a double decomposition. Two parts of acetate of lead in solution are mixed with one part of subcarbonate of potass; and, after the precipitate wholly subsides, the supernatant fluid is filtered and evaporated until crystals are formed. To prevent any traces of lead from being retained by the salt, he adds a small portion of sulphate of potass, which instantly precipitates it in the form of sulphate of lead. This process is simple, of easy execution, and likely to afford a very white salt: but we must condemn the introduction of any process into pharmacy, which, either from the carelessness of the operator, or from accidental failure in the expected results, might endanger the life of a patient.

## THEORY AND PRACTICE OF MEDICINE, SURGERY, AND MIDWIFERY.

*Practice of Medicine.*—No subject is more interesting to humanity, or of more importance in a professional point of view, than the correctly ascertaining the laws which regulate the propagation of diseases from one individual to another. One of the

* *Journal de Pharmacie*, No. x. p. 433. The following is the method by which the oil of eggs can be most readily procured:—"Let any quantity of the yolks of fresh eggs be put into a silver or a glass vessel, and dried by the heat of a water-bath until the oil can be expressed from the mass, in the hand. Put this into a cloth bag, and press it strongly between two plates of pewter, warmed in boiling water. The oil thrown upon a filter, in a funnel heated by steam, will then pass through perfectly clear." The analysis of 100 parts of oil, in Braconnot's method, yielded 88 parts of pure animal oil, and 11 of suet.

greatest of the difficulties which oppose the attainment of truth in this investigation, is the uncertainty of the accounts which are given as to the circumstances under which the individuals who are attacked were placed prior to their receiving the disease; and hence of determining whether the malady be infectious or contagious. This observation, it must be evident, applies to those diseases only which are communicable through the medium of the atmosphere. Those may be regarded as *infectious*, when the sphere of action of the virus is very greatly extended, or when, from peculiar circumstances, such as an atmosphere loaded with adventitious matters arising from animal and vegetable decompositions, the virus exhaled from the body of a diseased individual, instead of being weakened by its dilution in the surrounding air, seeming to acquire a greater power of action from the miasmata with which it mixes, becomes capable of producing a similar disease at a considerable distance from the source of infection. Those diseases, on the contrary, in which the sphere of action of the virus is limited to a very small distance only from the body of the diseased, or which requires immediate contact, and on which the atmosphere seems to exert but little if any influence, may be justly regarded as *contagious*.

Contemplating the subject in this point of view, Dr. Hossack has published some very interesting "observations on the laws governing the communication of contagious diseases, and the means of arresting their progress*." He is of opinion that both plague and yellow fever are not generally contagious, but are propagated only through the medium of a vitiated atmos-

* Dr. Hossack's paper was read before the Literary and Philosophical Society of New York, on the 9th of June 1814. The following are the conclusions he draws from his facts and observations: "1st, That an impure atmosphere is indispensably necessary to multiply and extend the specific poison constituting plague, dysentery, typhus, and yellow fever. 2nd, That the impurities of the atmosphere do not produce their effects in the manner suggested by Dr. Chisholm, by increasing the susceptibility of the system to be acted upon by the peculiar virus of those diseases. 3rd, That instead of predisposing the body to be thus acted upon, the reverse is the fact; that the predisposition of those who are most exposed to such impure air is less, while those who reside in the pure air of the country are most liable to be infected when exposed to the contagion. 4th, That the impurities of the atmosphere are fermentable materials, to be called into action by the specific ferment of those diseases, aided by heat, moisture, and a calm state of the atmosphere; and that as far as such atmosphere extends, and the circumstances favourable to such fermentative or assimilating process continue, so far do these diseases become epidemic, but no further."

phere; and that the local circumstances of any place to which it is conveyed, determine either its extinction or its diffusion. Thus, for instance, in a person sickening for yellow fever in a town, and returning home to the country, although the disease will run its course in the individual, yet the infection will not spread; but in the close air of a crowded city, the reverse will occur; because, in this latter case, the vitiated state of the atmosphere adds a force to, or increases the virulence of the morbid atoms which propagate the disease.

This opinion of Hossack is supported by the observations of Dr. Pardon Bowen on the yellow fever*; and still more strongly by those of Dr. Calvert in his account of "the origin and progress of the plague in the island of Malta in 1813†." "It appears to me," says Dr. Bowen, "that we have abundance of evidence to believe in its foreign origin; and that it is a disease *sui generis*, generated originally in tropical climates, and oftentimes brought into and propagated under favourable circumstances in the United States. And I believe it requires a peculiar constitution of atmosphere, as a pabulum to support the contagion, and render it capable of re-production: this peculiar condition is found in sea vessels, and about salt rivers, docks, &c." Dr. Calvert's observations led him to conclude, that the plague communicates its pestilential influence to the atmosphere; and that it is diffused to a greater, or less distance according to climate, season, and local circumstances; altogether independent of "its resting upon some material and visible object, hereafter to be communicated by contact alone." As a powerful argument in favour of his opinion, he inquires, "why do all diseases that occur during a pestilential period partake of the nature of the plague?" and, after stating various facts, adds, "the most respectable of the Maltese physicians acknowledged to me, that they believed every case of fever that occurred during the season of plague was pestilential‡."

Connected with remarks illustrative of the nature of contagion, we have to notice Dr. Denmark's "Observations on the MEDITERRANEAN FEVER§;" which he conceives to bear a great affinity to the Synochus of England, and the Yellow Fever of the

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* *American Medical and Philosophical Register*, vol. iv. p. 341.

† *Medico-Chirurg. Trans.* vol. vi. p. 1.

‡ "It is extremely probable then," says Dr. Calvert, "that the plague at Messina was introduced exactly in the same way as that at Malta, *viz.* through the medium of the air, and proceeding from the bodies of two men who died and were buried in the lazaret." (*Medico Chirurgical Trans.* vol. vi. p. 61.)

§ *Medico-Chirurg. Trans.* vol. vi. p. 296.

West Indies; and yet not arising either from marsh miasma or contagion. Dr. Denmark is of opinion, the causes of this fever are the palpable sources of fatigue, "intemperance (especially in drinking), and vicissitudes of heat and cold." On a correspondent state of fever, and also on intermittent, as they occurred in the peninsular army under Lord Wellington, some valuable facts have been recorded by Sir James Macgrigor*. Some additional cases of the fever which appeared lately at Cambridge have also been published by Dr. Hurrison and Mr. J. Haviland†; from which it is evident, both from the nature of the symptoms and the appearances on dissection, that the brain was the principal seat of the disease; and that it was of a contagious nature.

It is pleasing to observe how much these writers coincide in asserting the efficacy of blood-letting in the early stages of continued fever. Since our last Report, several new cases of its success in yellow fever have also been published‡. The great point to insure the beneficial effects which the lancet is calculated to afford, is to ascertain correctly the proper period for employing it. In general, bleeding should be resorted to within forty-eight hours from the attack; and repeated at short intervals until the symptoms abate. In the bilious remittent, Dr. Denmark remarks, "after the yellow suffusion, whatever may be the other symptoms demanding it, venesection, I believe, will not be borne with impunity." The same practitioner bears ample testimony to the powerful influence of purging in these fevers, particularly with calomel; which appears to prove almost specific when it can be readily introduced into the system.

In the intermittents of the Peninsula, Sir J. M'Grigor made several comparative experiments with the cinchona *cordifolia* and the cinchona *lancifolia*, and found that their power in curing these fevers was nearly equal§.

A case of typhus gravior, as it occurred in a patient in the Hôtel Dieu, has been published by Dr. Drogart, in which the

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* *Medico-Chirurg. Trans.* vol. vi. p. 381. This valuable paper is not confined to fever, but is, what it professes to be, a "Sketch of the Medical History of the British Armies in the Peninsula of Spain and Portugal." It contains a number of facts highly creditable to the observation, judgment, and management of the author, and of the utmost importance to military medical officers.

† Observations on the Necessity and Utility of Blood-letting in Continued Fever, by John Allen. Vide Edinburgh Med. and Surg. Journal, No. xliii. p. 318.

‡ *Med. Trans. of the College of Physicians*, vol. v. p. 381 and 400.

§ *Medico-Chirurg. Trans.* vol. vi. p. 418.

affusion of cold water is said to have proved hurtful: but it only tends to prove the imperfect view which is taken of disease on the continent, and the trivial attention to the discrimination of symptoms by which alone any success in the application of remedies can be rationally expected*.

*Rheumatism*†, although certainly more general, yet, is daily coming more under the controul of the practitioner. Much of this has undoubtedly arisen from its intermittent character being correctly remarked; and from the use of the cinchona and spirit of turpentine, after the skin and bowels have been opened; and the force of the circulation moderated in habits of an inflammatory diathesis. The dread of metastasis has, we believe, prevented the cinchona from being so freely employed as should have been; but we have never seen an instance of this; and we believe the occurrence to be extremely rare‡. In our own practice, also, we can bear testimony to the efficacy of spirit of turpentine, even when the blood drawn appears much cupped, and very buffy. A singular instance of the beneficial effects of drinking sea-water in rheumatism is detailed by Dr. Reid Clanny§. How far, from analogy, purgatives might be pushed in this disease, time must determine.

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* *Journal de Medecine*, tom. xxxiv. p. 131.

† The French practitioners have been in the habit of employing a solution of camphor in acetic ether as an external application in rheumatic and other affections attended with pain. A similar composition has lately been introduced by Dr. Tourtuel of Munster. It is prepared by dissolving one grain of camphor in an ounce of Hoffman's anodyne liquor; and in some cases its efficacy is augmented by adding the oil of cajeput. The following, according to Dr. Tourtuel, are the cases in which this remedy is chiefly indicated.

1. Rheumatic and gouty irritation, particularly when the head is affected, attended with a tearing, pungent pain, and vertigo: rheumatic odontalgia, and catarrhal cephalalgia. 2. Hysterical cephalalgia. 3. Local debility of the head supervening to excessive evacuations. 4. Intermittent fevers of nervous subjects, particularly when the corporeal disease has been removed, and the nervous impression only remains: in which cases, says Dr. Tourtuel, frictions with this solution have proved more efficacious than even the cinchona.

‡ Mr. Grainger, who has published some excellent remarks, "On the Effect of Cinchona in Acute Rheumatism," (vide *Medical and Surgical Remarks*, &c. by Edward Grainger, 8vo. London, 1815,) observes, "I have never seen but one case of metastasis in acute rheumatism, where that mode of treatment (with cinchona) has been followed."—p. 241. He suspends its use only when the urine deposites a pink sediment; at which time he exhibits purgatives.

§ *Repository*, vol. iv. p. 180.

As Phthisis still resists the influence of medicine, and little progress has been made in settling any mode of practice likely to prove successful, except removal to a more temperate climate; it becomes very important to ascertain the real utility of those situations to which phthisical patients are generally sent. Dr. Young has entered fully into the consideration of this subject, and recommends the West Indies, for instance Bermuda, or "a temperate and sheltered part of Jamaica." These situations, he observes, "together with the equable qualities of the sea air, to which the patient must be exposed during the voyage, must present every advantage towards the recovery of a consumptive person, that climate alone can possibly bestow*." He condemns both Lisbon and Montpellier; an opinion confirmed by that of Dr. Somers, who resided as a physician at the latter place; and who observes, "that the vicinity of the mountains to the north of Montpellier renders the climate, in spring and winter, very changeable; and this is found to be a cause of much mischief to phthisical patients†. Sir James Mac Grigor, from personal observation, also objects to Lisbon‡.

As no disease proves a greater scourge to armies than Dysentery, it is natural to look to military practice for any improvements in the treatment of it. In Sir James MacGrigor's sketch, already alluded to, the method pursued by Dr. Somers is stated to have been imminently successful. He generally bled freely in the first instance, and immediately followed it up with plentiful dilution, and compound powder of ipecacuanha, in doses of twelve grains, frequently repeated. Calomel and opium were given every second night, with small doses of neutral salts during the day; and, after the disease was thus allayed, health was gradually confirmed by light tonics §.

The increasing frequency of Paralysis has been generally

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* A Practical and Historical Treatise on Consumptive Diseases, deduced from original observations, and collected from authors of all ages, by Thomas Young, M.D. &c. 8vo. pp. 478. Lond. 1815; a work which, from Dr. Young's celebrity, it is almost unnecessary for us to observe, is replete with learning and research.

† *Medico-Chirurg. Trans.* vol. vi. p. 445.

‡ *Ibid.* Sir James remarks, "The result of our experience in Walcheren was, that the air was in general favourable to pulmonary complaints;"—an opinion which coincides with some facts lately detailed regarding the effects of the atmosphere of the fenny counties of England in phthisis.

§ In noticing the dissections of dysentery, and the evident sequelæ of inflammatory action which all the abdominal viscera exhibited, Sir J. MacGrigor adds, "one spleen weighed three pounds four ounces." *Medico-Chirurg. Trans.* vol. vi. p. 436.

noticed, but has not been satisfactorily traced to any evident cause. In a detail of some cases of this disease*, Dr. Powell states his opinion that topical congestion, or the extravasation of blood, is not in every case the cause of paralysis; but "that this disease may also originate in a peculiar condition of the brain and nerves alone, unattended by any discoverable alteration in their anatomical structure." The most frequent occasional exciting cause in these cases, was the application of cold; and the remedy which of course was directed to the restoration of the lost, or rather suspended, power of the nerves, was the due application of heat and moisture. In delirium *tremens* the practice of Dr. Sutton is becoming every day more firmly established by the experience of others†.

The obstinacy with which TETANUS has resisted the most energetic and judicious methods of treatment, has suggested the trial of every remedy which either possesses, or is supposed to possess, antispasmodic powers. Among these we may class spirit of turpentine, which Dr. Phillips exhibited in the form of enema in a case of lock-jaw with the most beneficial effects‡. The dose was half an ounce, combined with eight ounces of infusion of senna; the visible effect was an almost instantaneous unlocking of the jaw, and subsidence of all the unfavourable symptoms. We were, indeed, previously acquainted with the efficacy of this essential oil as an antispasmodic, from a hint given by Dr. Latham on his work on Diabetes, and the cases published by Dr. Percival§, in proof of its power in epilepsy: and we have now to state, that several new facts have been made public by Dr. Latham||, Dr. Thomas Young[6], and Dr. Lithgow[7]: in which it appears that, in small doses, spirit of turpentine has very little effect in epilepsy; but in doses of an ounce, unless the disease originates in the head, it appears perfectly adequate to overcome the fits. In chorea, also, it has been exhibited by Dr. Powell with decided advantage[8].

A peculiar species of convulsions, attacking children, and bearing some affinity to epilepsy, has been noticed by the late Dr. Clarke. It seems to originate in visceral disease; but the proximate cause appears to be pressure on the origin of the

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* *Med. Trans. of the College of Phy.* vol. v. p. 96.

† *Repository*, vol. iv. p. 363.

‡ *Medico-Chirurg. Trans.* vol. vi. p. 65.

§ *Edin. Med. and Surg. Trans.* vol. x.

|| *Med. Trans. of the Roy. College of Phy.* vol. v. p. 65.

[6] Ibid, p. 274.

[7] *Edin. Med. and Surg. Journ.* vol. xi. p. 300. [8] Ibid, p. 374.

nerves from inordinate determination of blood to the head. Bleeding, purging, and the warm-bath are the remedies which have proved successful*.

Although the cause of Colica pictonum is so well ascertained, and much has been done in relieving the more urgent symptoms by purgatives and opium; yet, when the influence of the poison had been so much exerted on the nervous system as to produce paralysis of the wrists, the cure, if ultimately effected, has always been protracted. Dr. Roberts, however, has observed that nitrate of silver is a very powerful agent in overcoming both the cause of the spasmodic contractions, and the consequent paralysis†: and by this means the complaint may be now regarded as being directly under the controul of art.

The variety of means by which Nature is capable of attaining the same end has been seldom more remarkably exemplified than in the successful treatment of Diabetes. By the most opposite means, such, for instance, as blood-letting and the internal exhibition of opium, the same end has been effected. In support of the efficacy of the former method several very satisfactory cases have been published by the late Dr. Satterley‡; in one of which 106 ounces of blood were abstracted; and the relief was so evident, even to the patient, that he requested a more frequent renewal of the remedy than the Doctor deemed it prudent to grant.

The observations of our ingenious correspondent, Mr. Edmondston §, has almost demonstrated the importance of blood-letting in Hydrophobia; and his opinions have been in part confirmed by the successful case of Hufeland ||, although the circumstances were certainly less conclusive than could have been wished. It must, however, be acknowledged that several unsuccessful cases have been reported within the last six months, in all of which the lancet was resorted to; but in some, at least[1], the circumstances were such as did not allow of any rational prospect of success. Among these, in particular, may be classed the case detailed by Dr. Albers, of Bremen. It was treated by blood-letting; and 100 ounces of blood were abstracted at three bleedings; but there were peculiar circumstances in the case, producing strong mental excitement, which renders it nearly impossible to draw an inference as to the effects of the bleeding. "She had," says the Doctor, "a clear foresight of her perilous situation; and no arguments nor consolation of mind could tranquillize her on that score[2]. During the first bleeding, however, she felt some relief; and could see water poured from one vessel to another without any disagreeable sensation, which was not the case prior to the bleeding:

* *Clarke's Commentaries on some of the most important Diseases of Children*, Part. i. p. 87. For an analysis of this important work, vide *Repository*, vol. iv. p. 290.

† *Med. Trans. of the Roy. Coll. of Physicians*, vol. v. p. 45. ‡ *Ibid.* p. 1.

§ *Repository*, vol. iv. p. 268. || *Ibid.* p. 500. [1] *Ibid.* p. 117. [2] *Edin. Med. and Surg. Journal*, vol. xi. p. 415.

but she soon relapsed, and subsequent bleedings produced no beneficial effect.

On the subject of Scrophula we have to notice the critical enquiry, by Dr. Henning*, which displays, at least, considerable learning. After examining the etymology of the name, and taking a general review of the theories which have been invented to elucidate the nature of scrophula, Dr. Henning enters upon an inquiry as to its supposed hereditary nature; and concludes, that, although it often appears in the progeny of those who have had the disease, yet, it also "often occurs in individuals whose predecessors were never known to have it;" and it is also irrefragably proved, "that the natives of temperate climates, where scrophula is unknown, upon migrating to the cold and fluctuating regions of the north, are there invariably attacked with it." He supports the opinion, that the predisposing cause of the disease is a moist and cold atmosphere; and adds, that the exciting cause is a peculiar effluvia or miasma, which is taken in by the cutaneous absorbents; a doctrine, which, were this the proper place, it would not be difficult to refute. He regards the suppuration of the tumour as an effort of Nature to throw off the disease; and considers the forwarding of this intention as one of the most important curative means. The Œthiops graphitialis is strongly recommended by Professor Huber as a remedy in this disease†.

As a specimen of the advantages of graphic delineations in illustration of diagnostics, Dr. Bateman's plates, or rather the republication of Dr. Willan's plates, with the additions of Dr. Bateman now in progress, must not be overlooked. Without these, his Synopsis is in some places not easily understood; but with them, every thing that the practical physician can desire on the subject of cutaneous diseases is placed within his reach. In this order of diseases, the only novelties we have to refer to are, the mode of curing impetiginous ringworm by adhesive plaster, suggested by Dr. Reid Clanny‡; and the fact, noticed in our observations on the prevailing diseases, that Eczema *rubrum* can be produced by the external application of red precipitate§.

In concluding our details on the Practice of Medicine, we have only further to mention the observations of Dr. Valentin on the use of the actual cautery, confirmed by Professor Reich's case[5]; the important communication of Mr. Gaitskell on biliary obstruction, in which hydatids to a great amount were discharged[6]; the recommendation of Dr. Eichrodt, of Carlruhe, in favour of the external use of oxymuriatic acid, in venereal diseases[7]; Dr. Baillie's paper on green jaundice[8]; and a curious paper by the late Dr. Clarke on the effects of eating oysters on women after child-birth[9]; as particularly deserving of attention.

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* A Critical Inquiry into the Pathology of Scrophula, &c. &c. by George Henning, M.D. 8vo. pp. 256. Lond. 1815. † *Repository*, vol. iv. p. 7. ‡ *Ibid*, p. 51. § *Repository*, vol. iv. p. 525. [5] *Ibid.* vol. iv. p. 342. [6] *Ibid.* p. 466. [7] *Ibid.* 242. [8] *Med. Trans. of the Roy. Col. of Phy.* vol. v. p. 142. [9] *Ibid.* p. 109.

Surgery.—The most curious and interesting addition to this branch of Medical Science which we have to notice, is "*an account of two successful operations for restoring a lost nose,*" by Mr. Carpue[1]; who has displayed great learning and industry in tracing the history of this operation, of which he may be regarded as the reviver, both in Europe and in India. From the evidences which Mr. Carpue has collected, the nasal operation, as it may be termed, was known in Europe as early as the date of the Christian era; and records exist of its having been performed with success long before the period of Talicotius, who, because he wrote fully on the nature of the operation, has been very generally, although erroneously, regarded as its inventor. The historical part of Mr. Carpue's account is of the most curious and satisfactory description. With respect to the operations performed by Mr. Carpue himself, as we shall take the earliest opportunity of giving an analysis of the work, we will at present only observe, that the success of both was perfectly complete.

Mr. Wadd has published a series of cases of the diseased bladder and testicles, illustrated with engravings of the morbid parts[2]. As the nature of the work does not admit of abridgement, we merely remark, that it adds another to the many proofs, already extant, of the very satisfactory assistance afforded by the graphic art, in the correctly understanding written descriptions of diseased appearances.

In all operations requiring ligatures to be applied on arteries, the separation of these has always proved a source of more or less vexation to the surgeon. To obviate this inconvenience, Mr. Lawrance has described a method which he has successfully employed, of using fine silk ligatures, and cutting off the ends as close to the knot as is consistent with its security. The foreign body is thus rendered truly insignificant; it does not interfere with the process of adhesion; and even should it never come away, so minute a body is scarcely sufficient to excite subsequent irritation and disturbance[3].

An operation by Mr. Chevalier, in a case of *croup*[4], has displayed in a very satisfactory manner the advantages to be derived in the practice of medicine, both in a theoretical and practical point of view, from the aid of surgery. When the incision was made, which was done just below the cricoid cartilage, an ounce and a half of reddish-brown mucus instantly gushed out, and the patient was relieved. Mr. Chevalier having found this mucus very generally choaking up the trachea in dissections of croup, justly conceives, that the suffocation is more to be attributed to it than to the coagulable lymph and artificial membrane, as usually supposed.

These few facts, with the notices we have taken of Baron Larrey's method of ascertaining the presence of foreign bodies in joints; and extirpating them[5]; and Mr. Young's practice in cancer[6], embrace every thing of importance lately advanced in this branch of the profession. The too great length to which our Retrospect has already extended, obliges us to defer till another occasion any account of the few improvements that have taken place in Midwifery and Medical Jurisprudence.

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[1] An account of two successful operations for restoring a lost nose from the integuments of the forehead, by J. C. Carpue, Member of the Royal College of Surgeons, &c. 4to. pp. 108, plates, London 1815.

[2] Cases of Diseased Bladder and Testicle, illustrated by etchings, by William Wadd, Surgeon, 4to. pp. 72. Lond. 1815.

[3] *Medico Chirg. Trans.* vol. vi. p. 156. We know that Mr. Hennen practised a similar mode of cutting ligatures close to the knot, during his service with the British Army in Spain. [4] *Ibid.* p. 151. [5] *Repository*, vol. iv. p. 338. [6] *Ibid.* p. 495.

## Synoptical View of the State of the Atmosphere, &c. in London, from May to November, 1815.

From the 20th of April to the 19th of May.—Barometer, highest 30-29; lowest 29;—thermometer, highest 74°; lowest 49°:—prevailing winds W.S.W.—quantity of rain, one inch 50-100. Considering the season, there was an unusual number of fine days; and at the latter part it was very warm and humid.

From the 20th of June to the 19th of July.—Barometer, highest 30-30; lowest 29;—thermometer, highest 78°; lowest 50°:—prevailing winds, W.NW.—quantity of rain, one inch 30-100. The majority of the days were fine; there were very few rainy The temperature generally being high, the heat was oppressive.

From the 20th of July to the 19th of August.—Barometer, highest 30-30; lowest 29: — thermometer, highest 74°; lowest 52°:—prevailing winds, NW.:—quantity of rain, one inch 21-100. The prevalence of the northerly winds till the last four days rendered this period colder than the preceding, and the temperature at no time was so high. On the 6th of August there was hail.

From the 20th of August to the 19th of September. —Barometer, highest 30-40; lowest 29: — thermometer, highest 78°; lowest 36°: — prevailing winds, SE. NW.: — quantity of rain 95-100 of an inch. The heat and dryness was remarkably great; and yet on the 4th, 5th, and 6th of September the temperature suddenly sunk in many places to the freezing point; from which much mischief ensued to the vegetable kingdom.

From the 25th of September to the 19th of October. —Barometer, highest 30-30; lowest 29-24: — thermometer, highest 63°; lowest 46°:—prevailing winds, WSW. E.: — quantity of rain, two inches. The temperature was very uniform, and the weather extremely pleasant; although more rain fell than for many months, and there were some foggy days.

From the 20th of October to the 19th of November. —Barometer, highest 30-30; lowest 29-29: — thermometer, highest 62°; lowest 29°: — prevailing winds, SW. NE:— quantity of rain, one inch 97-100. The atmospheric variations were extreme and frequent; the first part being sultry and close, and the latter part very cold and bleak, with very stormy weather, and snow and frost.

A NOSOLOGICAL TABLE *of the aggregate of the Cases recorde in the Monthly Registers of the* REPOSITORY *of the* Diseas of London, *between the* 20*th of May and the* 19*th of N evmber* 1815.

| CLASS I. PYREXIÆ. *ORDO* 1. FEBRES. | May. June. | June. July. | July. Aug. | Aug. Sep. | Sep. Oct. | Oct. Nov. | Total. | Fatal. |
|---|---|---|---|---|---|---|---|---|
| Intermittentes | 27 | 27 | 20 | 20 | 10 | 14 | 118 | |
| Catarrhales | 14 | 29 | 23 | 21 | 33 | 40 | 160 | |
| Synocha | 40 | 33 | 42 | 31 | 29 | 31 | 206 | |
| Typhus *mitior* | 25 | 14 | 12 | 16 | 10 | 27 | 104 | |
| ——— *gravior* | 1 | 3 | 2 | 3 | 9 | 3 | 21 | |
| Synochus | 22 | 34 | 21 | 21 | 35 | 26 | 159 | |
| Puerpera | 4 | 3 | 4 | 10 | 1 | 3 | 25 | |
| Remittentes *infantiles* | 38 | 24 | 35 | 38 | 28 | 30 | 193 | |
| *ORDO* 2. PHLEGMASIÆ. | | | | | | | | |
| Phlogosis | 15 | 13 | 12 | 14 | 10 | 12 | 76 | |
| Phlegmasia *dolens* | ..... | 1 | 5 | ..... | 2 | 3 | 11 | |
| Abcessus | 26 | 32 | 33 | 22 | 21 | 20 | 154 | |
| Furunculus | 4 | 12 | 3 | 4 | 5 | ..... | 28 | |
| Pernio | ..... | 2 | ..... | 2 | ..... | 8 | 12 | |
| Paronychia | 7 | 4 | 10 | 6 | 7 | ..... | 34 | |
| Carbunculus | ..... | 1 | 3 | 2 | 4 | ..... | 10 | |
| Sphacelus | ..... | ..... | 1 | ..... | ..... | ..... | 1 | |
| Ophthalmia | 63 | 56 | 61 | 49 | 44 | 34 | 307 | |
| Phrenitis | 1 | 8 | 4 | 11 | 2 | ..... | 26 | |
| Cynanche *tonsillaris* | 48 | 54 | 48 | 57 | 50 | 45 | 302 | |
| ——— *maligna* | 3 | 9 | 8 | 5 | 6 | 1 | 32 | |
| ——— *trachealis* | 1 | ..... | 1 | 4 | 5 | 3 | 14 | |
| ——— *pharyngia* | ..... | 1 | 1 | 1 | 4 | 2 | 9 | |
| ——— *laryngia* | ..... | 2 | 1 | ..... | ..... | 1 | 4 | |
| ——— *parotidea* | 7 | 1 | 3 | 5 | 3 | 8 | 27 | |
| Bronchitis *acuta* | 12 | 7 | 10 | 7 | 12 | 8 | 56 | |
| ——— *chronica* | 12 | 3 | 5 | 3 | 5 | 8 | 36 | |
| Pneumonia | 16 | 7 | 14 | 22 | 26 | 48 | 133 | |
| ——— *peripneumonia* | 24 | 9 | 21 | 15 | 15 | 17 | 101 | |
| ——— *pleuritis* | 14 | 19 | 19 | 16 | 22 | 18 | 108 | |
| ——— *empyema* | ..... | ..... | 1 | ..... | 1 | ..... | 2 | |
| Phthisis *pulmonalis* | 48 | 44 | 30 | 40 | 37 | 18 | 217 | |
| ——— *trachealis* | ..... | ..... | ..... | ..... | 1 | ..... | 1 | |
| Carditis | ..... | 3 | 3 | 1 | 1 | ..... | 8 | |
| Pericarditis | 2 | ..... | ..... | 1 | ..... | ..... | 3 | |
| Peritonitis | 1 | 7 | 3 | 5 | 3 | 6 | 25 | |
| Gastritis | 8 | 3 | 8 | 2 | 2 | ..... | 23 | |
| Enteritis | 2 | 9 | 12 | 13 | 2 | 5 | 43 | |
| Hepatitis | 32 | 30 | 18 | 23 | 19 | 21 | 143 | |
| Splenitis | ..... | 2 | ..... | 1 | 2 | ..... | 5 | |
| Nephritis | 6 | 4 | 5 | 7 | 7 | 7 | 36 | |
| Cystitis | 2 | ..... | 1 | 2 | ..... | ..... | 5 | |
| Lithiasis | 4 | 2 | 2 | 1 | 3 | 1 | 13 | |
| Hysteritis | 3 | 1 | 1 | ..... | 2 | 3 | 10 | |
| Rheumatismus *acutus* | 44 | 38 | 52 | 40 | 56 | 56 | 286 | |
| ——— *chronicus* | 55 | 54 | 48 | 47 | 63 | 39 | 306 | |
| Cephalæa | 4 | 7 | 10 | 5 | 6 | 6 | 38 | |
| Cephalalgia | 48 | 49 | 42 | 36 | 27 | 20 | 222 | |

| ORDO 2. PHLEGMASIÆ, Continued. | May. June. | June. July. | July. Aug. | Aug. Sep. | Sep. Oct. | Oct. Nov. | Total. | Fatal. |
|---|---|---|---|---|---|---|---|---|
| Pleurodyne | 10 | 6 | 4 | 12 | 7 | 4 | 43 | |
| Lumbago | 1 | ..... | 2 | ..... | ..... | 5 | 8 | |
| Hysteralgia | 2 | 3 | 2 | 2 | 2 | 1 | 12 | |
| Ischias | 4 | 3 | ..... | 4 | 2 | 5 | 18 | |
| Hepatalgia | 6 | 8 | 9 | 10 | 6 | 6 | 45 | |
| Neuralgia | 2 | 1 | ..... | 1 | 1 | ..... | 5 | |
| Nephralgia | 6 | 1 | 6 | 6 | 4 | 6 | 29 | |
| Tic Doloreux | ..... | 1 | 3 | ..... | 3 | 2 | 9 | |
| Odontalgia | 12 | 11 | 13 | 16 | 12 | 29 | 93 | |
| Otalgia | 2 | ..... | 4 | 5 | 5 | 3 | 19 | |
| Podagra | 16 | 10 | 16 | 9 | 12 | 7 | 70 | |
| ORDO 3. EXANTHEMATA. | | | | | | | | |
| Variola | 33 | 36 | 24 | 19 | 32 | 41 | 185 | 31 |
| Impetigo *figurata* | 3 | 4 | ..... | 5 | 4 | 2 | 18 | |
| ——— *sparsa* | 1 | 2 | ..... | 4 | ..... | ..... | 7 | |
| ——— *erysipelatodes* | 3 | 3 | 5 | 2 | 4 | 1 | 18 | |
| ——— *scabida* | 4 | ..... | 2 | 1 | ..... | ..... | 7 | |
| Porrigo *larvalis* | 2 | 8 | 3 | 5 | 2 | 3 | 23 | |
| ——— *scutulata* | ..... | 1 | 7 | 3 | 4 | 8 | 23 | |
| ——— *favosa* | ..... | 4 | 4 | 4 | ..... | 3 | 15 | |
| ——— *decalvans* | ..... | ..... | ..... | ..... | ..... | 3 | 3 | |
| Ecthyma | 2 | 5 | 10 | 8 | 5 | 2 | 32 | |
| Scabies | 72 | 40 | 50 | 56 | 52 | 37 | 307 | |
| Varicella | 9 | 15 | 35 | 12 | 15 | 13 | 99 | |
| Vaccinia | 30 | 15 | 11 | 44 | 34 | 40 | 172 | |
| Herpes *zoster* | 4 | 7 | 2 | 8 | 5 | 3 | 29 | |
| ——— *circinatus* | 9 | 4 | 10 | 2 | 3 | 2 | 30 | |
| ——— *labialis* | 8 | 11 | 1 | 3 | 4 | ..... | 27 | |
| ——— *præputialis* | 1 | ..... | 1 | ..... | 1 | ..... | 3 | |
| Rupia | 2 | ..... | 1 | 1 | ..... | ..... | 4 | |
| Eczema *solare* | 3 | 6 | 7 | 9 | 5 | 3 | 33 | |
| ——— *impetiginodes* | ..... | 5 | ..... | ..... | ..... | ..... | 5 | |
| Hydrargyria | ..... | 1 | ..... | ..... | ..... | 1 | 2 | |
| Aphtha *lactentium* | 20 | 23 | 27 | 18 | 16 | 10 | 114 | |
| ——— *anginosa* | ..... | ..... | ..... | ..... | 1 | 1 | 2 | |
| Miliaria | 2 | 3 | ..... | 6 | ..... | ..... | 11 | |
| Rubeola | 25 | 15 | 20 | 8 | 21 | 44 | 133 | 4 |
| Scarlatina *simplex* | 39 | 32 | 14 | 24 | 29 | 60 | 218 | |
| ——— *anginosa* | 4 | 6 | 11 | 15 | 9 | 24 | 69 | 2 |
| ——— *maligna* | ..... | 3 | 7 | 2 | 9 | 1 | 22 | 5 |
| Urticaria *febrilis* | 6 | 15 | 11 | 6 | 5 | 16 | 59 | |
| ——— *evanida* | ..... | 2 | 2 | 3 | 1 | 1 | 9 | |
| ——— *tuberosa* | 2 | 5 | ..... | 2 | ..... | ..... | 9 | |
| Roseola | ..... | 9 | 1 | 3 | 3 | 2 | 18 | |
| Purpura *simplex* | ..... | 1 | ..... | ..... | ..... | 1 | 2 | |
| ——— *hæmorrhagica* | ..... | ..... | 1 | ..... | ..... | ..... | 1 | |
| Erythema *læve* | 4 | 5 | 2 | ..... | 4 | 4 | 19 | |
| ——— *papulatum* | ..... | ..... | 2 | ..... | ..... | 1 | 3 | |
| ——— *nodosum* | ..... | ..... | ..... | 2 | 3 | ..... | 5 | |
| Erythismus *mercuriale* | ..... | 1 | 1 | 2 | ..... | 1 | 5 | |
| Erysipelas | 21 | 33 | 28 | 25 | 22 | 22 | 151 | 4 |
| Pemphigus | ..... | ..... | 1 | ..... | 1 | ..... | 2 | |

| *ORDO* 3. Exanthemata, *Continued.* | May. June. | June. July. | July. Aug. | Aug. Sep. | Sep. Oct. | Oct. Nov. | Total. | Fatal. |
|---|---|---|---|---|---|---|---|---|
| Pompholyx *benignus* | ..... | ..... | 1 | 1 | ..... | ..... | 2 | |
| ——— *diutinus* | ..... | ..... | 1 | ..... | ..... | ..... | 1 | |
| *ORDO* 4. Hæmorrhagiæ. | | | | | | | | |
| Epistaxis | 10 | 9 | 11 | 3 | 4 | 7 | 44 | |
| Hæmoptöe | 29 | 13 | 19 | 13 | 9 | 17 | 100 | 4 |
| Hæmorrhois | 19 | 20 | 27 | 15 | 20 | 22 | 123 | |
| Menorrhagia | 28 | 38 | 37 | 30 | 24 | 25 | 182 | |
| Abortus | 16 | 25 | 22 | 13 | 10 | 16 | 102 | |
| Hæmatemesis | 6 | 5 | 7 | 2 | 3 | 2 | 25 | 1 |
| Hæmaturia | ..... | 2 | 1 | 2 | 2 | 1 | 8 | |
| *ORDO* 5. Profluvia. | | | | | | | | |
| Catarrhus | 103 | 75 | 92 | 79 | 98 | 161 | 608 | |
| Coryza | ..... | ..... | ..... | 4 | 1 | 2 | 3 | |
| Leucorrhœa | 31 | 23 | 23 | 21 | 17 | 16 | 131 | |
| Dysenteria | 18 | 47 | 45 | 39 | 38 | 16 | 206 | 2 |
| CLASS II. NEUROSES. | | | | | | | | |
| *ORDO* 1. Comata. | | | | | | | | |
| Apoplexia | 9 | 8 | 14 | 10 | 8 | 4 | 53 | 24 |
| Paralysis | 12 | 10 | 12 | 10 | 8 | 10 | 72 | 5 |
| ——— *hemiplegica* | 9 | 5 | 5 | 2 | 2 | 6 | 29 | 2 |
| ——— *paraplegica* | ..... | ..... | ..... | 1 | ..... | 1 | 2 | 2 |
| Tremor | 1 | ..... | 1 | ..... | ..... | ..... | 2 | |
| *ORDO* 2. Adynamiæ. | | | | | | | | |
| Angina *pectoris* | 1 | 1 | 1 | ..... | ..... | ..... | 3 | |
| Syncope | 2 | 3 | 8 | 1 | 1 | ..... | 15 | |
| Asphyxia | 1 | ..... | 1 | ..... | ..... | ..... | 2 | |
| Asthenia | 43 | 47 | 37 | 38 | 27 | 27 | 219 | 4 |
| Dyspepsia | 100 | 128 | 132 | 107 | 90 | 99 | 647 | |
| Anorexia | 8 | 3 | 7 | 5 | 3 | ..... | 26 | |
| Cardialgia | 10 | 15 | 16 | 18 | 19 | 13 | 91 | |
| Gastrodynia | 31 | 26 | 44 | 48 | 26 | 30 | 195 | |
| Entrodynia | 8 | 8 | 22 | 16 | 26 | 18 | 99 | |
| Hypochondriasis | 9 | 9 | 7 | 10 | 11 | 12 | 58 | |
| Chlorosis | 13 | 13 | 13 | 19 | 9 | 11 | 72 | |
| Icterus | 26 | 22 | 14 | 26 | 18 | 18 | 124 | |
| Vertigo | 30 | 23 | 41 | 21 | 17 | 19 | 151 | |
| *ORDO* 3. Spasmi. | | | | | | | | |
| Spasmi | 18 | 12 | 7 | 18 | 11 | 10 | 76 | |
| Tetanus | 1 | ..... | ..... | ..... | ..... | ..... | 1 | |
| Trismus | ..... | ..... | ..... | 1 | ..... | ..... | 1 | |
| Singultus | 4 | 1 | 3 | ..... | ..... | 2 | 10 | |
| Convulsio | 10 | 22 | 21 | 13 | 11 | 21 | 98 | 9 |
| Chorea | 3 | 2 | 2 | 1 | ..... | 1 | 9 | |
| Epilepsia | 14 | 13 | 12 | 5 | 13 | 3 | 60 | 1 |
| Palpitatio | 9 | 7 | 8 | 6 | 14 | 7 | 51 | |
| Asthma | 45 | 47 | 34 | 38 | 56 | 81 | 301 | 12 |
| Dyspnœa | 27 | 14 | 13 | 20 | 16 | 23 | 113 | |
| Pertussis | 26 | 31 | 46 | 30 | 40 | 17 | 190 | 3 |

| *ORDO* 3. Spasmi, *Continued.* | May. June. | June. July. | July. Aug. | Aug. Sep. | Sep. Oct. | Oct. Nov. | Total. | Fatal. |
|---|---|---|---|---|---|---|---|---|
| Pyrosis | 14 | 4 | 10 | 14 | 6 | 7 | 55 | |
| Ileus | 2 | ..... | ..... | ..... | ..... | ..... | 2 | 1 |
| Colica | 24 | 23 | 19 | 33 | 40 | 20 | 169 | |
| —— *pictonum* | 7 | 8 | 4 | 5 | 5 | 6 | 35 | |
| Cholera | 21 | 134 | 76 | 175 | 53 | 17 | 476 | 3 |
| Diarrhœa | 70 | 152 | 155 | 226 | 156 | 77 | 836 | 7 |
| Diabetes | 2 | ..... | 3 | ..... | ..... | 1 | 6 | |
| Hysteria | 20 | 22 | 24 | 27 | 25 | 20 | 138 | |
| Hydrophobia | 1 | ..... | ..... | ..... | ..... | ..... | 1 | 1 |
| Strictura | 10 | 7 | 8 | 6 | 4 | 2 | 37 | |
| *ORDO* 4. Vesaniæ. | | | | | | | | |
| Amentia | 1 | 3 | ..... | ..... | 1 | 1 | 7 | |
| Mania | 6 | 7 | 13 | 6 | 8 | 6 | 46 | 3 |
| Melancholia | 4 | 2 | 4 | ..... | 1 | 2 | 13 | |
| Delirium *tremens* | 3 | ..... | 1 | 1 | ..... | ..... | 5 | 1 |
| CLASS III. CACHEXIÆ. | | | | | | | | |
| *ORDO* 1. Marcores. | | | | | | | | |
| Tabes | 8 | 14 | 7 | 12 | 7 | 3 | 51 | 7 |
| Atrophia | 7 | 2 | 10 | 9 | 2 | 6 | 36 | 5 |
| *ORDO* 2. Intumescentiæ. | | | | | | | | |
| Plethora | 7 | 8 | 7 | 8 | 6 | 8 | 44 | |
| Flatuosæ. | | | | | | | | |
| Pneumatosis | ..... | ..... | ..... | 1 | ..... | ..... | 1 | |
| Tympanites | 1 | ..... | ..... | 1 | 2 | 1 | 5 | 1 |
| Physometra | ..... | ..... | 2 | ..... | ..... | ..... | 2 | |
| Aquosæ. | | | | | | | | |
| Anasarca | 22 | 25 | 24 | 26 | 21 | 23 | 141 | 15 |
| Hydrocephalus | 6 | 9 | 4 | 5 | 4 | 6 | 34 | 19 |
| Hydrothorax | 11 | 6 | 7 | ..... | 3 | 3 | 30 | 9 |
| Ascites | 18 | 6 | 10 | 6 | 14 | 17 | 71 | 11 |
| Hydrocele | 1 | 3 | ..... | 2 | 3 | 2 | 11 | |
| Solidæ. | | | | | | | | |
| Calculus | 1 | 5 | 1 | 1 | 3 | 1 | 12 | |
| Rachitis | 4 | ..... | 4 | ..... | 3 | 3 | 14 | |
| *ORDO* 3. Impetigines. | | | | | | | | |
| Scrofula | 27 | 17 | 14 | 12 | 21 | 12 | 103 | |
| Syphilis | 42 | 30 | 22 | 46 | 33 | 29 | 202 | 1 |
| Scorbutus | 2 | 1 | 5 | 3 | 1 | 3 | 15 | |
| Strophulus *intertinctus* | 9 | 9 | 5 | 7 | ..... | 8 | 38 | |
| —— *confertus* | 1 | 1 | ..... | ..... | ..... | 1 | 3 | |
| —— *volaticus* | 1 | ..... | ..... | ..... | ..... | ..... | 1 | |
| Lichen *simplex* | 3 | 3 | 5 | 8 | 2 | ..... | 21 | |
| —— *agrius* | ..... | ..... | ..... | 1 | ..... | ..... | 1 | |
| Prurigo *mitis* | 7 | 7 | 5 | 4 | 4 | 2 | 29 | |
| —— *senilis* | 10 | 2 | 3 | 9 | 6 | 11 | 41 | |
| Lepra | 2 | 5 | ..... | 1 | 2 | 1 | 11 | |

| ORDO 3. IMPETIGINES, Continued. | May. June. | June. July. | July. Aug. | Aug. Sep. | Sep. Oct. | Oct. Nov. | Total. | Fatal. |
|---|---|---|---|---|---|---|---|---|
| Psoriasis *guttata* | 5 | 4 | 4 | 2 | 4 | 2 | 21 | |
| ——— *gyrata* | ..... | 2 | ..... | 1 | ..... | ..... | 3 | |
| ——— *inveterata* | 6 | 1 | ..... | 5 | ..... | ..... | 12 | |
| Pityriasis | 2 | ..... | 1 | 1 | ..... | 2 | 6 | |
| Acue | 2 | 3 | 2 | 5 | ..... | 3 | 15 | |
| Sycosis *menti* | ..... | ..... | ..... | 1 | ..... | ..... | 1 | |
| ——— *capilitii* | ..... | 1 | 1 | 3 | ..... | ..... | 5 | |
| Lupus | ..... | ..... | ..... | 1 | ..... | ..... | 1 | |
| **CLASS IV. LOCALES.** | | | | | | | | |
| ***ORDO* 1. DYSÆTHESIÆ.** | | | | | | | | |
| Caligo | 1 | 1 | ..... | ..... | 1 | 1 | 4 | |
| Amaurosis | 2 | ..... | ..... | 1 | 3 | 2 | 8 | |
| Dysecoea | 6 | 1 | 3 | 4 | ..... | ..... | 14 | |
| Paracusis | ..... | ..... | 4 | ..... | 1 | ..... | 5 | |
| ***ORDO* 3. DYSCINESIÆ.** | | | | | | | | |
| Dysphagia | ..... | ..... | 1 | ..... | 1 | ..... | 2 | |
| Contractura | ..... | 1 | 2 | 2 | 2 | ..... | 7 | |
| ***ORDO* 4. APOCENOSES.** | | | | | | | | |
| Profusio | ..... | 1 | ..... | ..... | ..... | ..... | 1 | |
| Eneurisis | 4 | 2 | 3 | ..... | ..... | ..... | 9 | |
| Gonorrhœa | 28 | 38 | 46 | 33 | 20 | 26 | 191 | |
| ***ORDO* 5. EPISCHESES.** | | | | | | | | |
| Obstipatio | 42 | 36 | 56 | 32 | 43 | 26 | 235 | |
| Ischuria | 7 | 2 | 5 | 10 | 2 | 4 | 30 | |
| Dysuria | 11 | 3 | 12 | 6 | 3 | 5 | 40 | 1 |
| Amenorrhœa | 21 | 27 | 23 | 31 | 19 | 21 | 142 | |
| ***ORDO* 6. TUMORES.** | | | | | | | | |
| Aneurisma | 1 | ..... | ..... | ..... | ..... | ..... | 1 | |
| Schirrus | ..... | 1 | ..... | 4 | 1 | ..... | 6 | 2 |
| Cancer | 1 | 2 | 2 | 3 | 2 | 3 | 13 | 4 |
| Polypus | ..... | 1 | 1 | ..... | ..... | ..... | 2 | |
| Hydrarthyrus | ..... | ..... | ..... | ..... | ..... | 1 | 1 | |
| Exostosis | ..... | 1 | ..... | ..... | 1 | ..... | 2 | |
| Bronchocele | 1 | 1 | 2 | 4 | 1 | 2 | 11 | |
| ***ORDO* 7. ECTOPIÆ.** | | | | | | | | |
| Hernia | 4 | 17 | 14 | 7 | 3 | 9 | 54 | |
| ——— *humorrhalis* | ..... | ..... | ..... | 5 | 1 | 1 | 7 | |
| Prolapsus | 3 | 5 | 3 | 3 | 3 | 3 | 20 | |
| ***ORDO* 8. DIALYSES.** | | | | | | | | |
| Fistula | 3 | 3 | 5 | 7 | 4 | 3 | 24 | |
| **HETEROCLITES.** | | | | | | | | |
| Dystochia | ..... | ..... | 2 | 1 | ..... | 1 | 4 | |
| Vermes | 26 | 32 | 29 | 33 | 24 | 21 | 165 | |
| Morbi *Infantiles* | 142 | 166 | 134 | 134 | 139 | 136 | 851 | 15 |
| ——— *Biliosi* | 120 | 131 | 120 | 135 | 103 | 80 | 689 | |
| **Totals** | 2683 | 2721 | 2695 | 2817 | 2447 | 2359 | 15722 | 399 |

*Recapitulation of the Number of Cases in all the Genera of Diseases, recorded in the Monthly Registers, between May and November, 1815.*

| | | | | |
|---|---|---|---|---|
| From 20th May to 19th June 1814, | | | 2683 | 56 |
| June | July | | 2721 | 69 |
| July | Aug. | | 2695 | 83 |
| Aug. | Sept. | | 2817 | 68 |
| Sept. | Oct. | | 2447 | 54 |
| Oct. | Nov. | | 2359 | 78 |
| | | | 15,722 | 399* |

If the introductory observations of Mr. Field, which accompanied the first synoptical table of the diseases of boys between infancy and puberty, in that great and admirable seminary, Christ's Hospital, be referred to (Vide *Repository*, vol. i, p. 280); the importance of them will be fully understood and appreciated. They have since been continued quarterly; and the practical remarks which are always annexed to them tend in a high degree to increase their interest and value. As there are no benevolent establishments for the education of youth so extensive in this country, neither are there any, in resources so ample nor in economy so complete, as this Royal Foundation; which maintains and educates in London between six and seven hundred boys. It has been truly observed by Mr. Field, that although many writers have treated on the disorders of infancy, yet none have noticed those at the period of life which those tables embrace. They therefore deserve to be regarded as a new and authentic source for the enlargement of pathological knowledge.

Persons having the moral or medical superintendance of similar Institutions might derive very useful information from such registers, if they were more general, and were kept with equal correctness. But we conceive the scientific intention of Mr. Field will be most effectually promoted, and the medical inquirer be more gratified, if his quarterly *Views* be condensed and published in a table for the past year; upon the plan adopted for the arrangement, into one synoptical half-yearly table, of the cases in our monthly registers.

Deficient as we are of all data in regard to the diseases of children forming so large an association, in any country, at this particular age, we should speak with hesitation even where some points offer that appear to deserve particular attention. We will, therefore, merely observe, that the cases of *Cynanche tonsillaris*, *Odontalgia*, and *Otalgia*, but especially of *Cephalæa*, an affection rare in youth, appear to us uncommonly numerous, while pneumonic inflammation has scarcely occurred. *Query*—May not the prevalence of these complaints be the effects of the well-known practice of the boys of the Blue-Coat School constantly going with their heads uncovered, and their bodies very warmly clad?

* Upon the accuracy of the returns of deaths in the monthly registers, we have before been very explicit and candid (*vide* vol. iv. p. 44); and to which explanation we refer for some observations on the relation of the total of mortality to the total of diseases, which are equally applicable to every one of the half-yearly Synoptical Tables.

*Synoptical Table of the Diseases of Boys between Infancy and Puberty, occurring in Christ's Hospital, London, from September 1814, to August 1815*.*

| PYREXIÆ. | Septem. | Octob. | Novem. | Decem. | Jany. | Feby. | March. | April. | May. | June. | July. | August. | Total. | Deaths. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Febris *synochus* | 3 | 1 | 2 | 3 | 1 | 8 | 5 | 4 | 10 | 9 | 11 | 1 | 58 | 1 |
| ——— *typhus* | — | — | — | 1 | — | — | 1 | — | 1 | 1 | — | — | 4 | 3 |
| ——— *catarrhalis* | — | — | — | — | 4 | 2 | 2 | — | — | — | 1 | — | 9 | |
| Cynanche *tonsillaris* | 7 | 8 | 4 | 4 | 1 | 3 | 3 | 4 | — | 1 | 2 | 3 | 40 | |
| ——— *trachealis* | — | — | — | — | 2 | 1 | — | — | — | — | — | — | 3 | |
| Parotis *benigna* | 1 | — | — | — | — | — | — | 1 | 1 | 1 | — | — | 4 | |
| Pneumonia | — | — | — | — | — | — | — | — | — | 1 | — | — | 1 | |
| Phthisis *pulmonaria* | — | — | — | — | — | — | — | — | 1 | — | — | — | 1 | 1 |
| Rheumatismus *acutus* | 1 | — | — | — | — | — | — | 1 | — | — | — | — | 2 | |
| ——— *chronicus* | — | — | — | — | — | — | 1 | 1 | — | — | — | — | 2 | |
| Cephalæa | — | — | — | 1 | — | 2 | 1 | 1 | 3 | 1 | 1 | 1 | 11 | |
| Pleurodyne | — | — | — | — | — | — | 2 | — | 1 | — | — | — | 3 | |
| Odontalgia | 2 | — | 1 | 2 | 2 | 2 | 2 | — | — | 1 | 5 | 1 | 18 | |
| Otalgia | — | 1 | — | — | 1 | 1 | — | — | — | 2 | 1 | — | 6 | |
| **EXANTHEMATA.** | | | | | | | | | | | | | | |
| Variola | — | — | — | — | — | — | 1 | 3 | 5 | 1 | — | — | 10 | |
| Scabies | — | 2 | — | — | — | — | — | — | — | — | — | — | 2 | |
| Varicella | — | — | — | — | — | 1 | — | — | — | — | — | — | 1 | |
| Herpes *zoster* | 1 | — | — | — | — | 1 | — | — | — | 1 | — | — | 3 | |
| ——— *pustularis* | — | — | — | — | — | — | — | — | — | 1 | 1 | 1 | 3 | |
| Oris interni excoriatio Erysipelatodes | — | — | — | 1 | — | — | — | — | — | — | — | — | 1 | |
| Rubeola | — | — | — | 1 | 17 | — | — | — | 8 | 1 | — | — | 27 | 1 |
| Scarlatina *simplex* | — | — | — | — | — | — | — | — | — | — | 1 | — | 1 | |
| ——— *anginosa* | — | — | — | — | — | — | — | 1 | 2 | 2 | 7 | 1 | 13 | |
| Urticaria | — | 1 | — | — | — | — | — | — | — | — | — | 1 | 2 | |
| Erythema *nodosum* | — | 2 | — | — | — | — | — | — | 1 | 1 | — | — | 4 | |
| Pompholyx *benignus* | — | — | — | — | 1 | — | — | — | — | — | — | — | 1 | |
| Prurigo *mitis* | — | 1 | — | — | — | — | 2 | 2 | — | — | 1 | 5 | 11 | |
| Tussis *catarrhalis* | 1 | — | 5 | 3 | 2 | 2 | 3 | 3 | 1 | 6 | 2 | 1 | 29 | |
| Nausea, Gastrodynia, et Diarrh. | 11 | 6 | 7 | 8 | 3 | 4 | 6 | 7 | 8 | 8 | 17 | 13 | 98 | |
| Icterus | — | — | — | — | — | — | — | — | — | — | 1 | 2 | 3 | |
| Vertigo | — | 1 | — | — | — | — | — | — | — | — | — | — | 1 | |
| Epilepsia | 1 | — | — | 2 | — | — | — | — | — | — | — | — | 3 | |
| Pertussis | — | — | — | — | — | 1 | — | — | 1 | — | — | — | 2 | |
| Hydrocephalus | — | — | — | — | — | — | — | 1 | — | 1 | — | — | 2 | 2 |
| Hydrops *ascites* | — | — | — | — | — | — | — | — | 2 | 1 | — | — | 3 | |
| Obstipatio | 2 | — | 2 | 1 | 2 | 1 | — | 1 | 3 | 2 | — | — | 14 | |
| Ascarides | 1 | — | — | — | — | — | — | — | — | — | — | — | 1 | |
| | 31 | 23 | 21 | 27 | 36 | 29 | 29 | 30 | 48 | 42 | 51 | 30 | | |
| | | | | | | | | | | | | Total of Cases | 397 | — |
| | | | | | | | | | | | | Total of Deaths | | 2 |

* Mr. Field's nomenclature is of course strictly adhered to; nor have we attempted any classification, except of the pyrexial and cutaneous cases of disease.—Editors.

# APPENDIX.

DEPENDENT as the progression of Medical Science is on the qualifications of its professors, in no way can some remarks on recent regulations regarding Medical Education be more appositely introduced, than as an Appendix to this RETROSPECT. In our exordium we have cursorily alluded to their probable influence on the qualifications of those intended in future for the exercise of the healing art, as Apothecaries. But we are induced to add some further observations on a subject on which the vital interests of society so materially depend; and which must greatly influence the success of that part of the rising generation, who are, or may be, devoted to the study and practice of Medicine: Neither can such remarks be deemed irrelevant in a place, especially regarding every thing connected with its improvement.

We dilated the more amply in our review of Mr. Cross's Sketches of the Medical Schools of Paris, because we conceived it a favourable opportunity of imparting information beneficial to the British Schools of Medicine, and to the students frequenting them.

From the knowledge of what has already occurred in the examinations of candidates, from the communications made to us in our editorial capacities, and from observations in contemporary journals, it is too evident that there are very lamentable and serious defects in the initiatory system pursued for the instruction of youth destined to act as general practitioners or apothecaries.

Young men have applied for examination to entitle them to certificates to practise, who have never been taught even the rudiments of the Latin language; yet had been regularly indentured with large premiums; and, what is very reprehensible, whose masters had countenanced such deficiency in education, by asserting, that an acquaintance with the classics was not requisite for a medical practitioner! What should be the feelings of a master, when his apprentice is rejected for incompetency, and prevented from the exercise of that profession to which he has been improperly introduced;—and what are the claims of young men so situated and their parents on such masters, we shall not attempt to pronounce.

Another source of incompetency is, that masters do not consider that apprentices require more attention than the common routine of a shop, and that teaching the dispensing of medicines correctly is not the sole duty imposed upon them as instructors.

It cannot be expected that many opportunities of teaching youth the treatment of diseases can occur in private practice. But, in country practice, especially, attendance on the the sick poor often affords this advantage; and it should never be neglected.

If the bodies of the deceased were more frequently examined than they are, which might, if sought for, be easily effected, pupils might have demonstrated to them many morbid appearances, as well as the site and natural appearances of parts in a state of health.

The custom of having every pharmaceutical composition prepared, and almost every natural substance used in medicine in a pulverized or disguised state from the druggists, precludes, generally, the possibility of acquiring any practical chemical knowledge, or an acquaintance with the Materia Medica, during an apprenticeship. Yet, where such advantages are wanting, masters might, and should take care, that at leisure hours their pupils are occupied with reading the best authors on all the accessory sciences to their profession, with which they ought to provide them.

If, unfortunately, either from inability or disinclination, a master is deficient in these his duties, the well-disposed and industrious youth may still fill up his vacant hours in a manner extremely conducive to his improvement.

As a direction to his studies, when so situated, we beg leave to proffer the following as a profitable course for him to pursue.

We by no means prescribe lighter and more general studies. The perusal of the best English and foreign authors in history, the belles-lettres, ethics, natural philosophy, &c. will be an agreeable relief from more abstruse exercises, give taste and correctness to the judgment and style, expand and improve the mind, and fit it for association with the world.

But it is indispensable to cultivate the classics. Whatever may be the attainments in the learned languages, it is easily preserved and extended; but let it be remembered, neglect soon obliterates the greatest proficiency. Since the Greek has become almost exclusively the language of science, an acquaintance with it will give the greatest facility in acquiring the true import of all scientific terms.

It is not so difficult as may be conceived, for those who have received no classical instruction, by a resolute perseverance to become self-taught good Latin scholars.

The following is the plan we have had occasion to advise apprentices to adopt.

FIRST YEAR.

*Winter.*—1. To translate portions of the *Pharmacopœia*

*Londinensis*, as an exercise; by which its language becomes familiar. And here it may be remarked, that the disuse of the Latin version of it, which is very universal, is a very injudicious practice, and much to be reprobated. 2. Frequently to examine drugs, and compare them with the descriptions in the *London* and other *Dispensatories*. 3. To read MURRAY's *Chemistry:* repeating those experiments which do not require a complicated apparatus.

*Summer.*—SMITH's *Introduction to Botany*—WILDENOW's *Introduction to Botany*—WITHERING's *Botany*: comparing as many plants as can be procured, with the descriptions in it, and those in the *Dispensatory*.

SECOND YEAR.

*Winter.*—HENRY's or THOMSON's *Chemistry*—J. BELL's or CHESELDEN's *Anatomy*—RICHERAND's *Physiology* — GREGORY's *Conspectus Medicinæ*.

*Summer.*—WITHERING's *Botany* — MIRBEL's *Elemens de Physiologie Vegetale et de Botanique*.

THIRD YEAR.

*Winter.*—GORDON's *Anatomy*—B. BELL's *Surgery*—CUVIER's *Comparative Anatomy*, or BLUMENBACH's—C. BELL's *Surgical Operations*.

*Summer.*—WITHERING's *Botany*—BRISSON's *Principes de Physique*—GREGORY's *Œconomy of Nature*.

FOUTH YEAR.

*Winter.*—CULLEN's *First Lines*—BAILLIE's *Morbid Anatomy*—CULLEN's *Nosology*—HEISTER's *Compendium Anatomicum*—WILSON *and* FORDYCE *on Fevers*.

*Summer.*—MURRAY's *Materia Medica*—SAUNDERS *on Mineral Waters*—PARKE's *Chemical Essays*.

FIFTH YEAR.

*Winter.*—FERRIAR's *Medical Histories and Reflections*—DENMAN's *Midwifery* — SMELLIE's *Plates* — BOERHAAVE's *Aphorisms*—HEBERDEN's *Commentaries (Latin)*—BATEMAN's *Synopsis of Cutaneous Diseases*—HUNTER *on the Venereal*—PEARSON *ditto*—ABERNETHY's *Surgical Observations*—ZIMMERMAN's *Experience*—GREGORY *on the Duties of a Physician*—PERCIVAL's *Medical Ethics*.

*Summer.*—LINNEI *Elementa Botanica*—*Systema Naturæ*—BUFFON's *Natural History*—FRIEND's *History of Physic*—ORFILA's *Toxicology*—KIRWAN's *Mineralogy*.

WORKS OF REFERENCE.

Parr's *London Medical Dictionary*—Aiken's *Chemical Dictionary*—Woodville's *Medical Botany*—Martyn's *Language of Botany.*

By the exercise of reading, if no other advantage were obtained, the danger of falling into idle habits is avoided, the judgment is schooled in the practice of reflection, the memory is strengthened, and a vast fund of theoretical knowledge is stored. Theory, alone, it is true, would avail but little in practice; but when the mind has the guide of experience, false theories are soon corrected, the truest inductions follow, and the student so well founded forms the soundest practitioner.

But where opportunities for dissecting human bodies are wanting, there is much to be learnt from comparative anatomy. The practice of dissecting and examining the structure of the lower orders of animals is highly instructive. It likewise teaches a facility and dexterity in the use of the knife, and gradually fits youth for pursuits of higher importance, and more immediately the objects of his investigation.

There are also some chemical experiments which will be found described in elementary books, and which, though simple, may be tried unaided by the practical chemist. Thus, first principles being implanted, an attachment to scientific researches and a respect for the arts naturally result.

Botany, which has been so unaccountably neglected by the English, while it has been cherished with the fondest predilection by our continental neighbours, is one of the most pleasing and useful studies: the scenes for which every garden, field, and wood present. It is easy, by examining the list of the Materia Medica, to conceive that one acquainted with botany, is more than half conversant with the natural history of the substances used in pharmacy.

A youth coming to the medical schools of London, having passed such a noviciate, will find all his future studies facile and delightful; and may look forward with confidence to the most brilliant success.

Having delivered our sentiments so fully on the subject of education, we will finally advert to the Act for the better regulation of the practice of Apothecaries; which constitutes a very proper corollary to so important a disquisition.

We had long entertained the notion, that neither the public nor the profession was fully sensible how much the interests of both are concerned in the provisions of that measure. We thought we had done our share, as far as the interests of the latter were affected, by publishing the Act itself; and subse

quently the regulations of the Court of Examiners, and also by replying at large to numerous applicants for explanations. Nevertheless, we were exceedingly rejoiced to read in the *Morning Chronicle* of Tuesday, December the 5th ult. a letter signed *Philo-Medicus*, that takes a clear view of the real objects of the Act, as it relates to the public; and also makes some forcible remarks worthy the attention of the general practitioner; and which, for the sake especially of our junior brethren, ought to be published through the medium of a Journal devoted to professional subjects. Although copying from a newspaper be contrary to our rules, yet, for the reasons above stated, we will add to the usual number of our pages to give room for its insertion. (*Vide* Medical and Physical Intelligence.)

Incredible as it may appear, yet there are indubitable proofs that the medical practitioners have suffered individuals to commence practice as Apothecaries, in many places, since the passing of the Act, who have no just pretension, either from their education or possession of a certificate of their qualifications. This is sanctioning an imposition, of the evils of which themselves have most loudly complained, and which will prove highly injurious to them. Whatever may be the consequence, therefore, of their supineness and want of respect to the character they have to sustain, they know full well whom to blame. The Legislature has given the Apothecary a rank in society, suitable to the importance of his character, and certain incontrovertible rights. It is by their own conduct, and by the exertion of a due vigilance over those who would thus intrude, that Apothecaries can best preserve the former, and defend the latter: and when they forget that they are themselves the conservators of what they have with so much difficulty acquired, they must not expect to be regarded or remunerated as the professors of a liberal science.

For ourselves, we have earnestly endeavoured, both in our public and private capacities, to promote the advancement of Medicine, and to uphold the honour and dignity of every branch of it; and thus having fulfilled our paramount duty as far as we are able, we shall in future abstain from further remarks, in the hope that time will apply the proper correctives.

# PART I.

## ORIGINAL COMMUNICATIONS.

### I.

*A General View of the Diseases usually occurring in Boys during the Period between Infancy and Puberty, deduced from Observation of those in Christ's Hospital.* By HENRY FIELD, Member of the Society of Apothecaries, London, and Apothecary to Christ's Hospital.

*(Continued from page 268, Volume IV.)*

| TABLE OF DISEASES, 1815. | Sept. | Oct. | Nov. |
|---|---|---|---|
| 1 Cynanche tonsillaris | ..... | 1 | 6 |
| 2 ——— trachealis | 1 | ..... | 1 |
| 3 Scarlatina Anginosa | 4 | 9 | 2 |
| 4 ——— Simplex | 1 | ..... | ..... |
| 5 Tussis Catarrhalis | 1 | 1 | 2 |
| 6 Febris Synochus | 2 | 1 | ..... |
| 7 —— Catarrhalis | 1 | ..... | ..... |
| 8 Peritonitis | ..... | ..... | 1 |
| 9 Pleurodyne | 1 | ..... | ..... |
| 10 Odontalgia Catarrhalis | ..... | 2 | 1 |
| 11 Otalgia | 2 | 1 | ..... |
| 12 Obstipatio | ..... | 1 | ..... |
| 13 Nausea, Gastrodynia vel Diarrhœa | 12 | 8 | 9 |
| 14 Cephalæa | ..... | 1 | ..... |
| 15 Varicella | ..... | ..... | 1 |
| 16 Icterus | ..... | ..... | 1 |
| 17 Urticaria | ..... | 1 | ..... |
| 18 Hydrothorax | ..... | 1 | ..... |
| 19 Syncope | ..... | 1 | ..... |
| 20 Epilepsia | ..... | ..... | 2 |
| 21 Herpes zoster | 1 | ..... | ..... |
| 22 ——— pustularis | ..... | 1 | ..... |
| 23 Prurigo mitis | 4 | 3 | ..... |
| 24 Pompholyx benigna | 1 | ..... | ..... |
| 25 Parotis benigna | ..... | ..... | 1 |
| Total | 31 | 32 | 27 |

The autumnal season has afforded but little opportunity for medical observations. The months of September and October exhibited very fine and seasonable weather; the former of these was unusually warm. The early part of November was mild; but before the middle of the month, winter made its appearance with severity very unusual at this season, and continued nearly the same during the remainder of the month. Much snow fell in various parts of the kingdom.

Diseases of the primæ viæ prevailed much during the month of September, but were in general slight, and soon removed. *Scarlatina anginosa* has continued among the boys, more or less, during the whole of the present period, but has been for the most part very mild, and in every instance has terminated favourably. It is somewhat singular that this disease has existed in the school during the whole of the summer, and yet there have seldom been more than three or four cases of it in the infirmary at the same time, and usually only one or two. Upon former occasions when this disorder prevailed, it has seldom lasted above two or three months; and the number of boys undergoing it, has been then much greater than the aggregate of the last seven or eight months, perhaps nearly double to it. Though scarlatina seldom takes place a second time in the same subject; yet, as nearly two years have elapsed since it was last epidemical in the school, and there is a continual succession of fresh boys, this remarkable difference cannot be explained upon the supposition that the boys have already in general undergone it.

November, though much the coldest of the autumnal months, has been the most healthy. Indeed, a few inflammatory sore-throats were the only diseases of any consequence occurring in it.

There has been only one death during the present period.—C. R. of the Royal Mathematical School, aged 15½ years, was attacked early in the month of July with cough, fever, and general catarrhal symptoms, accompanied with great prostration of strength and dejection of spirits. Though the symptoms of bodily disease were much alleviated, yet he continued very weak, and his lowness of spirits were unabated. It being esteemed probable that country air would have a tendency to counteract these, he was removed to Hertford in the early part of August, where he remained until the middle of October, when he returned to London. It was now obvious that no benefit had been derived from this change; on the contrary, both debility and nervous depression had increased, and being much more emaciated, his symptoms were supposed to indicate chronic *phthisis*. Though he had a constant cough, yet the pulse and temperature of the body were but very little above

their usual standard; and little or no expectoration at any time took place, nor was there, at this time, much difficulty in respiration. In this manner the disease proceeded, with but small variation in any respect until about two days prior to his death. On the 16th of November he was so well as to sit up nearly the whole of the day: on the following morning, his pulse was observed to be much increased in frequency; he was unable to rise from his bed; his breathing became very laborious; and it was obvious, that, without a considerable amelioration of symptoms, the vital actions would be soon overcome. He survived only until the morning of the 19th. The peculiarities attending this case rendered it desirable to ascertain the nature of the malady; and, with the consent of his relations, the body was examined by Mr. Stanley, on Tuesday the 21st of November, when the following appearances, as communicated by him, were observed.

DISSECTION.

"In both sides of the thorax there was found a very considerable quantity of water, as also in the pericardium. The pleura belonging to each lung exhibited the ordinary effects resulting from inflammation in this membrane, such as thickening, with effusion of lymph from its internal surface, forming bands of adhesion between the opposite surfaces of the pleura costalis and pulmonalis. The substance of the lungs was healthy, as was likewise the heart. In the abdomen was also found a considerable quantity of water. The viscera were generally healthy, but the peritoneum was in various parts changed in its structure: there being considerable thickening of the membrane, with the deposition of small white tubercles in its texture. These changes were more particularly seen in the peritoneum forming the mesentery, and also in the omentum."

Upon comparing the symptoms which were observed in this patient with the appearances upon dissection, it seems probable, that, though there might have been some effusion of fluid in the earlier stages, yet that it could not have existed long without being attended with symptoms more characteristic of water in the chest. It is particularly to be noticed that the pulse never discovered any disposition to intermission or irregularity, nor was there any palpitation of the heart.

Having now completed the second year of my reports, I shall conclude with a brief summary, exhibiting at one view the more important circumstances of disease which have occurred in this house during the year.

Measles and scarlet fever have both prevailed; the former principally in January; and the latter, as already mentioned, during the summer and autumnal quarters. Add to this, fever has been a very frequent disease, particularly in May, June,

and July. The year must, therefore, be considered as having been very unhealthy. The fatality has been, in consequence, unusually great. Nine deaths have taken place during this period: namely, four from fever; one from measles; two from hydrocephalus; one from hydrothorax; and one from phthisis pulmonalia. The total number of patients admitted into the infirmary, and included in these reports, has been 414, which is 104 more than in the preceding year*.

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## II.

*Cases of Cholera Morbus successfully treated with Dilute Nitric Acid.* By Christopher Bowes, Surgeon-Apothecary, Richmond, Yorkshire.

### Case I.

On the 18th of September last I was called in the morning to Mrs. Y——, who was suffering under severe pain in the bowels, attended with bilious vomiting and purging, which had come on the preceding day. I ordered her to dilute freely with barley-water, &c. and to take a mucilaginous draught with laudanum every three or four hours. This plan was followed, without producing any permanent relief, till the evening of the 22d; when my friend, Dr. Wilson, of this town, visited her, and suggested to me the use of nitric acid, which he had exhibited with success in a case of chronic diarrhœa; and which he and I, in concert, had also administered with very good effect to a man labouring under dysentery. The following mixture was prescribed for Mrs. Y.:

℞. Infus. Calumbæ
Aq. Cinnam. ā ā f℥ij.
Acid. Nitric dilut. ♏xvi.—M. Ft. mist. Sum. coch. ii quartâ quaque horâ.

The first dose afforded her some ease, and the next morning we found her considerably better. The medicine was continued during the 23d and 24th, though the pain, vomiting, and purging had already ceased. She afterwards took a tonic mixture for a few days on account of weakness, but had no return of cholera.

### Case II.

Lady ——— was attacked in the night of the 22d of Sept.

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* This quarterly view forming a part of the present volume, we could not consistently introduce its accompanying table in a *Retrospect* of the period which the last comprises.—Editors.

with pain in the bowels, purging, and sickness. I saw her next morning, and prescribed diluents and opiates, which afforded some temporary relief during the day; but the complaint mostly returned in the evening. Having observed the great benefit derived from the nitric acid in the preceding case, I determined to try it in this. My patient being a lady of rank, I thought it necessary to apprize her of the nature of the remedy that was going to be administered, fearing that her prejudices might be shocked when she found that I was giving her acids in a *bowel complaint*. She however consented to make the trial; and on the 26th she began with the following draught, which was repeated every four hours:

℞. Infus. Calumbæ
Aq. Cinnam. ā ā f℥vi.
Acid. Nitric. dilut. ♏iv.—M. Ft. haust.

When I visited her on the 27th, I found her considerably better, and on the morning of the 28th she was free from complaint.

CASE III.

Oct. 13th.—About 8 A.M. I was called in great haste to M. D. a middle-aged woman, who, the messenger informed me, was thought to be dying. I found her supported on the side of a bed by two women, who told me she had been attacked in the night with violent pain in her bowels, attended with incessant vomiting and purging, and also the cramp in her lower extremities. She appeared to be in a state of syncope; her pulse being scarcely perceptible. As she was unable to speak, I was obliged to be satisfied with the report of her attendants. I ordered her to begin with the following mixture immediately.

℞. Aq. Cinnam. f℥iv.
Acid. Nitric. dilut. ♏xx.—M. Ft. mist.
Sum. coch. j maj. quaque horâ.

At 10 A.M. I saw her again; she had taken two doses of the medicine; and the pain, vomiting, and purging, had considerably abated. She was now able to answer questions in a faint voice. I visited her in the evening, and found her much better. On the 14th, when I saw her, she told me all her complaints had left her, except the cramp, which continued rather troublesome. She was still very feeble. The following was prescribed:

℞. Infus. Calumbæ f℥iv.
Acid. Nitric. dilut. ♏xvi.—M. Ft. mistura.
Sum. coch. ij. quartâ quaque horâ.

On the 15th she was stronger, and the cramp much lessened. On the 16th, free from every complaint but weakness, from which she recovered in a few days.

### Case IV.

Oct. 14.—In the morning I was called to visit A. M. another middle-aged woman, who told me she had been attacked in the night with great pain in her bowels, attended with vomiting and purging. I gave her the following mixture:

℞. Aq. Cinnam. f℥iv.
Acid. Nitric. dilut. ♏xx.—M. Ft. mistura.
Sum. coch. ij. quartâ quaque horâ.

I saw her again in the evening; she had had neither vomiting nor purging since she began with the mixture, and the pain had nearly left her. On the 15th, when I called on her in the morning, I found her occupied with her domestic affairs, free from every complaint but weakness.

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These four cases of Cholera I have selected, as being the most severe, from ten that I have treated with nitric acid. They had all a speedy and favourable termination. No relapse occurred in any one of them, which is not the case when the disease is treated with opium; as I have found it frequently return when I had hoped it was subdued. Costiveness was not induced in any instance; and the stools generally resumed their natural appearance the day after the medicine was first administered. It is curious, and may be worthy of remark, that every patient that has come under my care, with cholera, this autumn, has been a female.

I shall not attempt to explain the *modus operandi* of nitric acid in this disease, but remain content with having stated the fact.

*** Mr. Bowes has since communicated to us two more cases of *Cholera*, treated with similar success with the same remedy.—Editors.

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When We reflect on the many important papers, and the character of the respected authors which fill and embellish the volumes of the *Repository*, we cannot but experience a degree of honest pride and satisfaction; and entreat our various correspondents to accept our due acknowledgments for the interest their labours chiefly have conferred upon them. But we are conscious, however important the subjects or respectable the characters of the writers, that the department of Original Communications might be considerably and instructively extended.

To encourage Medical Practitioners, whom repugnance to the disclosure of their names deters from publishing the many

valuable cases of diseases, and of morbid appearances in the living and the dead, which occur in their practice, we propose to appropriate a space in this PART to the reception of such FACTS as may be entrusted to us.

At the same time that we make this arrangement, which we trust will prove acceptable, we must deprecate the motives which, from a false delicacy, prevent those, who have both abilities and opportunities, from adding their contributions to the improvement of medicine. However, as we are unable, either by precept or example, to overcome this feeling, we will respect it; and when we are favoured with any case or fact worthy of publication, and *substantiated by the real address of the communicator*, which we pledge ourselves most solemnly to respect, we will interpose our own responsibility for its authenticity.

Hitherto the cases of our monthly Reporters or those which have occurred in our own practice that were brief, but yet practically useful, have been confined to the OBSERVATIONS ON PREVAILING DISEASES, attached to the REGISTERS OF DISEASES. These we shall in future place more prominently; and, together with such additional communications as we anticipate receiving, publish, periodically and impartially, under the head of

## AUTHENTICATED CASES, OBSERVATIONS, AND DISSECTIONS.

### I.—*A Case of Apoplexy.*

Mr. F. a gentleman aged 34, of short stature, a scrofulous habit, of active mind, and who had been for some years subject to dyspepsia, on the 6th of October last, in the heat of the sun, accompanied Wilson the Pedestrian on Blackheath twenty-one miles of his arduous task. In the evening of the same day he walked nine miles more. From that time he felt extraordinary weariness to the 10th, when he complained of head-ache, which increased till the 13th, when it became violent, and he was attacked with nausea and vomiting. His bowels had been constipated during this period. About noon he had a fit, having the character of epilepsy, which lasted about half an hour; from which time his senses were but imperfectly restored. During the day there were slight returns of these fits. At 12 P. M. another attack nearly carried him off. He passed the night

very disturbedly, and at 10 A. M. of the 14th, a recurrence of it destroyed him.

No medical advice had been sought till the morning of the 13th, when, as he would not submit to being bled, he was cupped largely, a blister applied to his neck, and was briskly purged.

*Appearances on Dissection.*—On examining the cavity of the cranium, the veins of the *pia mater* were very turgid with blood; there was considerable effusion on the posterior lobe of the right hemisphere of the cerebrum; upon cutting into which, there was a large coagulum found, weighing about half an ounce: this appeared to have issued from a rupture of the longitudinal sinus at its junction with the left lateral sinus; in which was observed a rend of about one third of an inch. There was no accumulation of water in the ventricles, nor any other morbid appearance. All the abdominal viscera were healthy, excepting a slight degree of inflammation of the peritoneum covering the liver and the adjacent intestines.

## II.—*A Case of Inflammation of the Glottis.*

An unmarried female, aged 30, was admitted into the Royal Infirmary at Edinburgh, March 20th, 1815, labouring under a fever of the typhoid type; from which, however, she was reported to be convalescent about the 30th, when symptoms arose which form the subject of these particulars. She had for a few days past complained of soreness of her throat, which had not particularly attracted the attention of her physician, till the evening of April the 1st, when, about 5 P.M. she was attacked with severe rigors, and complained very much of her throat. A blister was applied to the external fauces, which rose well and quickly. At 11 P.M. she experienced great difficulty of breathing, accompanied with a sibilous noise; on being requested to cough, it produced a sound somewhat resembling that heard in croup, only not so full, and more hissing; she was almost totally unable to swallow, but complained of no pain: the noise was chiefly produced in inspiration. Respiration was slower than natural; and in some attempts to expire, it could not be effected without cough. No swelling could be observed on inspecting the external fauces and throat, nor any inflammation or enlargement of the internal fauces; pressure on the back part of the tongue produced great distress: a view of the epiglottis could not be obtained. She represented her feelings as if some extraneous body was lodged in her throat stopping her breath, and often thrust her fingers to the back of her tongue, as if desiring to dislodge it. The coun-

tenance was livid, and indicated great anxiety. The mental faculties were unimpaired.

At about one A. M. she was found labouring under the symptoms just descibed, when a draught composed of tinct. opii. ♏ xxx. sp. ætheris sulph. f℥ss. and the inhalation of the steam of warm water were prescribed. She took the draught with much difficulty, and was unable to use the inhalation but a short time. The symptoms increased rapidly; respiration became extremely slow and laborious; the countenance pallid; and at about a quarter before two she was found moribund.

After the means above described had been used, without any effect, and respiration had ceased, the lungs were inflated for some time; but no motion of the heart could be produced. On introducing a tube into the glottis, the epiglottis was thought to be swollen.

*Appearances on Dissection.*—The inner membrane of the upper compartment of the larynx, called the glottis, was found greatly thickened. The thickening extended over the whole mucous membrane of the epiglottis to its frænum, and to the mucous membrane of the root of the tongue; over the top of the arytænoid cartilages, to the mucous membrane lining them; behind, and forming a part of the surface of the pharynx. Within the glottis itself, the thickening was greatest on the right side, where the right laryngeal ventricle was consequently very much diminished. The rima of the glottis did not seem in the least affected: the folds of the inner membrane, called the vocal cords, were of their usual thinness; nor was the lower compartment of the larynx, nor any part of the trachea, at all altered. The cavity of the chest was opened, and the lungs found perfectly natural. There were about six ounces of yellowish transparent serum in the pericardium; but the heart was healthy.

I had frequent opportunities of observing the progress of the febrile stages in this woman, with the other attendants; but none of us could call to mind any symptoms indicative of hydrops pericardii.

## III.—*Rupture of the Cystic Duct by a Biliary Calculus.*

A lady, aged about 57, who had for some years been subject to derangement of the biliary secretions, visited Cheltenham this autumn, for the benefit of her health; from which she returned better in her own opinion, but by no means so in that of her medical attendant.

She went out in her carriage, as usual, one morning in November; and was active in her ordinary pursuits. She suddenly felt herself very faint, and in a short time violent retch-

ings ensued, which continued for several hours, during which her skin became tinged of a deep yellow.

When the vomiting ceased, she sunk into a lethargic state, and died the same night.

*Dissection.*—On examining the body, it was found that a calculus had passed from the gall-bladder into the cystic duct, and being too large to pass further, had, probably from the effects of violent retchings, ruptured the duct, and occasioned her death.

A precisely similar case occurred in the same gentleman's practice about a year and a half before.

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*In consequence of the length to which the* RETROSPECT *has extended,*

THE

ANALYTICAL REVIEW, AND SELECTIONS,

ARE POSTPONED.

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# *PART IV.*

# FOREIGN MEDICAL SCIENCE AND LITERATURE.

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## PRACTICE OF MEDICINE.

I.—CASE of Hydrothorax cured by paracentesis; by *M. Ysabeau*, Surgeon of the Hospital de Gien*.

"A soldier of the 40th regiment of the line, named *Jolli*, was removed from his corps, on account of insurbordination, into a regiment of pioneers stationed at Bourges. This young man, aged 24 years, travelling in the month of July, being very hot and fatigued, laid down under some trees, where he slept and passed a great part of the night, in the neighbourhood of Chateauneuf, near Orleans.

"Upon awaking, he felt cold, and his clothes were moist from the night dew. In this state he continued his journey, arrived at Gien, and entered the hospital on the 8th of July. A few hours after his admission, he felt only as one would do who, after much fatigue, finds a good bed, some provisions, and hopes to pass a few days in tranquillity. The next day, however, he complained of a slight oppression on his breath, a little heat, and general illness. He was then put upon a proper diet, with the use of a diaphoretic ptisan, used the warm bath every two days, and was rubbed in the evening over the whole body with flannel. These means employed for nine or ten days appeared to procure relief.

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* *Bulletin de la Faculté de Médecine de Paris*, 1815, No. viii. p. 401.

"The patient, however, frequently experienced a sensation of suffocation, could neither walk nor take the least exercise without being stopped by a very uncomfortable difficulty of breathing, and by degrees he felt a peculiar sensation of pain when he lay upon the right side. The oppression increased every day; and in a short time, whenever he lay on his right side, a kind of beating was felt in the integuments of the left side of the thorax. At last all the symptoms of an effusion in the interior of the chest manifested themselves, particularly when percussion was employed; although it was then only nineteen days since Jolli had slept in the damp, and sixteen since his entrance into the hospital. Next morning, about six o'clock, *M. Ysabeau* performed the operation of paracentesis in the thorax with a flat canula; when five pints of a limpid inodorous fluid flowed from the wound. Care was taken to allow the fluid to flow slowly and at intervals; so that a slight ecchymosis and a little emphysema only were observed. A dry pledget, steeped in tepid wine, with a bandage round the body, were the sole means then employed. The patient was told to lie particularly on the side operated upon, that any fluid remaining might discharge itself.

"Upon the seventh day the wound appeared cicatrising: on the following, the pledget was taken away, and the compresses, with the bandages round the body, left for about twelve days longer. A light infusion of vulnerary plants was the only internal medicine exhibited. The patient left the hospital on the 10th of August in good health, thirty-three days after his admission; and three months afterwards he had experienced no kind of relapse."

II.—*Heim on the applying of cold water in the cure of Hydrocephalus.* Professor *Heim*, a celebrated physician at Berlin, announces that he has found the following mode of treatment very efficacious in this disease. Hitherto he had washed the head only with cold water; but he now recommends, when there is evident congestion of the brain, and the child becomes comatose or lethargic, and declines the breast or food, the hair being first removed, that a piece of cotton or many threads of worsted should be twisted, and applied as a band round the head, in the course a saw would be directed in an anatomical examination: this precaution he thinks prevents the water from running off too fast, and coming on other parts not intended to be cooled. Then the child being placed across the lap of an attendant, with its head projected, and the face downwards, ice-cold water is to be poured, by means of a funnel, from a height of six inches or a foot, round, and on the head. This should be continued unceasingly for a quarter of an hour at a time; therefore a third attendant should be ready with plenty of the prepared water. The running water may be received in a vessel

placed under the child's head. The part should then be wiped dry, and the child be put into a moderately warmed bed. In about an hour the affusion should be repeated, and so continued for twenty-four hours; the second day it is repeated in the same way every two hours; the next, at longer intervals; and is thus persevered in till the child recovers or expires. At all events, this practice is never discontinued entirely till the child recovers from the lethargic state, and its senses are restored; which, in most cases, occurs in the course of the first twenty-four hours after the application. Sometimes it is protracted to the third or fourth day; but this Professor H. considers an unfavourable omen. If the child relapse into the comatose state, the whole process must be repeated, and continued till the recovery appears permanent. A favourable prognostic is, when the child cries in the first twenty-four hours, or otherwise expresses uneasiness during the operation. But it is very ominous if no such symptom is manifested after the third or fourth day, and the child is still insensible. It is still worse when hemiplegia takes place, or the child feels quite cold on one side.

III.—Professor *Horn* has written very fully on the great efficacy he has experienced from the exhibition of Chalybeates on inveterate venereal ulcers. He says:

"Inveterate ulcers in the throat, lips, and genitals, which for the most part are considered as venereal, frequently prove by their long continuance, the resistance they oppose to the usual anti-venereal means, and by their obstinacy, that they materially differ from the proper nature of syphilitic complaints. These ulcers are often the effects of the abuse of mercurials, and require a treatment quite different from that of secondary venereal ulcers.

"Experience of later years has proved to *Mr. Horn*, that ulcers in the throat which occur in persons that formerly had had the venereal disease, frequently only wear the mark of venereal complaints, grow worse on the application of mercurials, but sooner, more certainly, yield to chalybeates. He has collected more than thirty important cases that convinced him of the excellent effects of it in such complaints. Several individuals being affected with these ulcers for years, had already lost a considerable part of the uvula and the antiades tonsillæ, and were so debilitated and emaciated, that but little hopes of their recovery could be entertained. In some, the caries of the ossa palati had already taken place; in others, a carious state of the cartilago narium, and in others the symptoms of a febris lenta were plainly observed. Some at the same time laboured under a chronic rheumatism; whilst in others the skin was covered in different places with light-brown spots.

"The consideration," he adds, "that iron raises considerably the reproductive activity; and that its inward

effects upon the process of vegetation are almost opposite to those of mercury, led him to many experiments, which yielded very favourable results. In the course of a few weeks, the condition of the ulcers was improved; they were cleaner and more superficial; their appearance was quite changed; the smell less offensive; the whole constitution of the patient was ameliorated; the complexion and appetite improved; and he now enjoyed undisturbed repose."

# *PART V.*

# MEDICAL AND PHYSICAL INTELLIGENCE.

## I.—SOCIETIES AND LECTURES.

### LECTURE I.—*Introductory.* By Professor BRANDE, at Apothecaries' Hall, London.

ACCORDING to the plan proposed at the termination of my last Course, I resume these Lectures with an account of the chemical preparations of the Pharmacopœia, and of the processes by which they are produced. Instead of attempting to arrange the observations I shall thus be led into, in a systematic and scientific form, I shall endeavour to render them more applicable to my immediate object, by pursuing the order which the London College has thought it right to pursue in the Pharmacopœia. This, I trust, will form no unimportant part of these Lectures on the Materia Medica; it will lead us to discuss the minutiæ of pharmaceutic chemistry, to compare the formulæ of the different Colleges, to point out their advantages, to animadvert upon their imperfections, and to suggest such improvements as experience and research may have discovered.

If the intrinsic importance of these topics would have formerly induced me to dwell upon them at some length, there are now additional reasons for the extension of the inquiry; the Court of Examiners of this Society having insisted upon a knowledge of pharmaceutic chemistry as a necessary part of his education, who is to practise as an apothecary. I trust that a very important part of medical education, hitherto either neglected or most slovenly acquired, will now be studied with more energy and interest, and that it will be consequently improved and extended.

There are two points of view under which pharmaceutical chemistry presents itself. First, as relating merely to the *rationale* of the processes which yield the chemical preparations employed in the alleviation and cure of disease. And secondly, as treating in particular, of the manipulations of the pharmaceutical laboratory, in which the best, shortest, and most economical processes for the preparation of medicines upon a larger scale is to be pointed out; and the various apparatus described, by which these results are obtained. It is to the former description that I shall principally beg leave to

call your attention. I shall dwell upon the changes in sensible and medicinal qualities which various substances undergo in consequence of chemical action—upon those changes which render inert substances active, and which produce harmless and inactive compounds from elements which are poisonous, corrosive, and otherwise highly operative. Among these, we may rank the most important phenomena of chemistry; and to the medical practitioner they hold out objects of the greatest interest—they shew upon what slight circumstances of composition the virtues and qualities of medicines depend, and they furnish the ground-work of that most important department of physic, which has of late been designated "Medical Jurisprudence;" teaching the method of detecting poisons, and of counteracting and mitigating their effects, as far as these are concerned in their chemical action, upon the parts to which they are applied. Were prescribing practitioners better versed in this branch of knowledge, we should have less frequent opportunities of smiling at the most unchemical jumbles which so often disgrace their prescriptions; and which, in consequence of necessarily ensuing decompositions which even a superficial chemist would avoid, give rise to new arrangements of the ingredients of their recipe, and so adjust them as to fulfil indications directly opposite to those, which in their ignorance were intended. If I express myself strongly upon this subject, it is because my assertions are grounded upon observation, and deduced from experience. I have not been imagining a case which is possible, but describing that which daily occurs.

In the second view which I have taken of pharmaceutic chemistry, as relating to the processes and economy of the manufacturer's laboratory, we have before us a subject, which, though of less general interest and utility, is yet of great intrinsic importance. Within the remembrance of many present, a laboratory was a necessary appendage to the apothecary's shop; he was obliged to prepare his chemicals at home, because they were not to be had abroad; but of late, the chemical articles of the Materia Medica have become an object of separate manufacture, and have given rise to a most useful and beneficial branch of trade, which furnishes the apothecary with better materials, and at a much cheaper rate than he could possibly afford for his own limited consumption. Although therefore this part of my subject is divested of much of its former interest, as far as concerns the mere practising apothecaries, there are several reasons which will induce me to enter upon it in these Lectures. The laboratories belonging to this extensive, and, I hope I may add, well-conducted establishment, will afford me ample materials to descant upon. I shall describe the various improvements and alterations which have been adopted here in processes and apparatus, and shall state the different operations had recourse to by manufactures, and ordered in the different Pharmacopœiæ of the Royal Colleges. To those concerned in the framing of our Pharmacopœiæ, knowledge of this kind is indispensable. The directions for the processes should not be, as they now are, merely such as will yield the desired article; but such as will afford it with the greatest certainty, with the greatest economy, and by the simplest means; and such as will not only succeed upon a small scale, but also answer in large quantities. It would be easy to

refer to the last edition of the London Pharmacopœia, for processes, which, though they certainly do yield the desired product, afford it by such circuitous and uncertain means as to render them inadmissible in the laboratory of the manufacturer; but I shall prefer a more deliberate examination of these important faults, to general censure unsupported by evidence, and therefore defer them, till, in the course of future lectures, they come regularly and strictly under consideration. In short, it is evident that the practical chemist is the only person from whom the most advantageous processes can be obtained; and it is to our excellent works upon chemistry at large that you must refer for that information which ought to be, but is not, afforded by the College Dispensatory. Aikin's Chemical Dictionary is in this respect an invaluable work, and abounds in such minute, and at the same time correct information, as to give me much pleasure in recommending it to your special notice. The pharmaceutical processes are there judiciously and fully detailed; and, if I judge rightly, by a person whose experience has well qualified him for the task. Murray's System of Chemistry is the only other work to which I think it necessary to refer. The manner and matter are both good, and it will afford those details which in the less scientific arrangements of a dictionary, are necessarily imperfect or hastily given.

Presuming that I have now said sufficient upon the general objects and scope of the present Course, I shall shortly digress upon such historical notices respecting them, as appear to me worthy of attention and remembrance.

We learn from history that the Science of Chemistry in its infant state was nurtured by the physicians of the early ages; and amidst the jargon of their works, though always obscure, and mostly unintelligible, we discern the rudiments of many useful and valuable facts. In their search for an universal remedy, they produced a number of active and useful medicines, which, in the hands of their more cautious and enlightened successors, were employed frequently with very novel, unexpected, and beneficial results in diseases which had resisted former remedies. Thus, instead of attaining their wished-for Lapis Philosophorum, which they sought with impious and unheard-of folly, they conferred permanent and extensive benefits upon Medicine, and upon many other arts of life.

Towards the end of the third century of the Christian era, when the learning of the antients was in its decline, there arose a sect of philosophers, from their tenets intitled New Platonists; they were celebrated for metaphysical disputes and superstitious notions, and claimed the right of familiar intercourse with demons and spirits. Some of them were voluminous writers, and have acutely touched upon pharmaceutical chemistry. Ammonius, Plotinus, and Porphyry I principally allude to. Porphyry has left a very curious tract upon the life of his master Plotinus, which is preserved in the Bibl. Gr. of Fabricius, and it is worthy the perusal of those who are desirous of acquaintance with the views and tenets of the sect.

Mr. Brande proceeded to a review of the works of the most notorious alchemists, as far as they relate to pharmaceutical operations, and dwelt principally upon those of Basil Valentine, the renowned

author of the *Currus Triumphalis Antimonii*, to whom, as a r[illegible] chemist, sufficient credit had scarcely been given. V[illegible] and Paracelsus were next noticed, and a brief analysis o[illegible] was given. The improvements in science which result[illegible] Bacon's methods of research were next alluded to, and th[illegible] upon the progress of chemical science especially noticed. [illegible] and Boyle were mentioned as having greatly contributed to p[illegible] ceutic chemistry; especially the former, who had enriched the M[illegible] Medica with many valuable and useful additi[illegible].

The Lecture concluded with an explanation of the views of those great theorists, Stahl and Lavoisier, and with some gen[illegible] upon the importance of their doctrines.

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Royal Society.—On the 9th of November the Society met for the first time after the long vacation. A paper by Sir H. Davy on the fire-damp in coal-mines was read. The author had been invited by Dr. Grey to examine the subject, in order to discover, if possible, some method of preventing those explosions which of late years have proved so fatal to the lives of the colliers. He accordingly visited several of the mines, and analyzed the pure gas collected from a blower. He states that this gas is extricated from the crevices of the coals; and he found that when a large piece of coal was broken to pieces under water, inflammable gas was given out. The result of his analysis of the gas was precisely the same with the previous result obtained by Dr. Henry (Nich. Journ. xix. 149), that it was pure carburetted hydrogen gas. It required twice its bulk of oxygen gas to consume it, and nearly its own bulk of carbonic acid gas. This is characteristic of carburetted hydrogen, as both Mr. Dalton and Dr. Thomson have ascertained. He found the specific gravity to be 0·639, but his specimen was mixed with common air. The true specific gravity of this gas is 0·555 (Wernerian Memoirs, i. 508). He found it much less combustible than other combustible gases. Iron heated to whiteness does not set it on fire. It requires actual flame. This fact has induced him to propose a lantern made air-tight, with a hole below to admit air, and one above to act as a chimney, as a complete security against the explosion of the fire-damp in coal-mines. He found that when a mixture of common air and carburetted hydrogen gas, in such proportions as to explode, is let up into such a lantern, the flame increases, so as nearly to fill the lantern, and then the lamp goes out. He conceives that, whenever in a coal-mine the air is mixed with carburetted hydrogen to the exploding point, such lamps would go out, and no explosion would follow. But such an experiment would be very hazardous. The fact is, that in such a case the gas within the lantern burns, and of course extinguishes the lamp; but in all probability the gaseous combustion would extend itself through the holes in the lantern, which are filled with gas at the exploding point, and set fire to the whole mixture in the mine. This would certainly happen sometimes, if not always; so that the lantern of Davy would furnish no certain security to the miners. The lamp of Dr. Clanny, if properly improved, is a much safer contrivance, and might be made equally cheap. Sir H. Davy constructed likewise lanterns with valves to prevent the escape of gas from the lantern when it explodes. On

Thursday, Nov. 16, an appendix to Sir Humphry Davy's paper was read He found that the addition of one-seventh of carbonic acid or of azote to the exploding mixture of fire-damp and air prevented the explosion. A paper by Mr. Daniel on solutions was likewise partly read. When an amorphous mass of alum was left for some weeks in water, it assumed a pyramidal form, and the lower part of it was embossed by distinct octahedral crystals. Borax exhibited a similar appearance; the lower part was embossed with rhomboidal crystals. Mr. Daniel conceives that in these cases, the cohesion of the solid resisted unequally the solvent power of the liquid, and that the upper part of the liquid acted more powerfully than the lower. Hence the pyramidal form, and hence the appearance of the crystalline texture. These phenomena were observed and described long ago by Le Blanc; but he ascribed the appearance of crystals at the under part of the body to the deposition of crystals from the liquid. But the following experiments of Mr. Daniel render this opinion not so probable. He put bismuth and antimony in very diluted nitric acid; after some days the bismuth exhibited the cubic texture, which is so striking in native bismuth, and the antimony exhibited the appearance of rhomboids. A number of similar experiments with other bodies were related, all tending to prove the accuracy of the conclusion which Mr. Daniel had drawn. On Thursday, Nov. 23, the remainder of Mr. Daniel's paper was read. He showed that the action of water and different solvents upon crystals was a much more delicate test of their structure than mechanical division. He showed that the supposition, that the integrant molecules of bodies are spheres, will explain the structure of alum crystals; the octahedral crystal, and all the other crystalline forms which it assumes being deducible from the arrangement of such spheres according to the action of gravity, merely by the abstraction or non-formation of certain angles by the removal of a certain number of molecules, while the arrangement of the rest is not altered; but the rhomboidal crystal of carbonate of lime, and the four-sided prism of sulphate of magnesia, cannot be deduced from the arrangement of spheres. Oblong spheroids, however, are capable of producing these forms. No other form of the particles but these two are capable of accounting for the structure of crystals.

Linnæan Society.—On Tuesday, November the 7th, the Society met after the long vacation. A paper by Mr. Johnson was read, giving further information respecting the fossil remains of an animal found at Lynn, in Dorsetshire. On Tuesday, November the 21st, the remainder of Don Felix Brotero's paper was read. There was also read an account of a considerable number of specimens of cinchona, by Aylmer Bourke Lambert, Esq. They had been taken in a Spanish ship, and came into the possession of Mr. A. T. Thomson, by whom the specimens described were given to the author. He was able to distinguish different varieties of known species. Five specimens were not referable to any known species, but appeared new. The yellow bark of the shops is obtained from the *cinchona hirsuta* of the *flora Peruviana*.— There was also read part of a paper by Dr. Eric Acharius on two new genera of *lichens*.

Society for the Relief of the Widows and Orphans of Medical Men in London and its Environs.—It is with feelings of the purest gratification that we have to announce an unexampled accession of subscribers to this excellent Institution, at the quarterly meeting of the Directors, held on the 20th ult. But what rendered this Court more particularly worthy of notice is, that besides a munificent donation of *one hundred guineas* by Dr. Willis, *one hundred pounds* was presented by the Earl of Ormond to the fund; examples, which, we trust, will be followed both by the rich and the noble throughout the land.

The Medical Annuitant and Benevolent Society.—Upon motives equally pure and philanthropic with the former, this Society is at length established. But it is different in principle, inasmuch as the advantage of the Medical Practitioner himself is intended; to whom it affords a certain provision against the pressure of want, at an age when few are capable of great exertions; while it extends the prospect of pecuniary aid to those, who shall, from misfortunes, to which all are exposed in the most successful practice, and even in the vigour of life, be objects for benevolence.

The Plan deserves the most serious attention; and requires only to be understood, to be actively supported; and, consequently, to become extensively beneficial.

At whatever age a subscriber to the Annuitant Fund enters, he will have to pay annually, till he is 60, that sum placed against his age in the column of *Annual Payments;* if he is disposed to subscribe, *at once,* the sum against his age in the column of *Single Payments,* he has nothing ever after to pay; and in either way he chooses to subscribe, at 60 years of age each possesses a *property,* not by benevolence, but by right, of an annuity of at least £50 for the remainder of his life.

Many Societies for the same premiums may offer as high an annuity; but the system of other Societies, never to give a larger annuity than the one subscribed for. But this Plan is calculated to secure, not £50 per annum only, but leads to the expectation of an annuity of much greater magnitude; because the profits arising from the payments will, as often as it can be safely done, be applied to the increase of the annuity:—thus, instead of £50, it may be double, or even more. Of course the Annuitant Fund, and the profits of it, must be strictly applied to the advantages only of the subscribers to it.

The Benevolent Fund is to be formed and supported by voluntary benefactions, and by subscriptions of any sum not less than a guinea annually from all ranks who regard the interests and credit of the Medical Profession. This Fund may also be augmented from the bequests of the affluent.

But subscribers to either Fund, being of the Medical Profession, will have claims for benevolence when their circumstances require it. In the distribution much discretion must be exercised; and it must rest with the Directors to judge of the propriety of the application, and the extent of relief to be allowed.

Having premised thus much, by way of explanation, we present to the Medical Public the subjoined detail:

At a General Meeting of the Members of the Medical Profession, held by advertisement, at the Freemasons' Tavern, December 26th,

1815, to receive the REPORT of the COMMITTEE for establishing a MEDICAL ANNUITANT SOCIETY, Dr. LATHAM in the Chair;

The Committee reported, That having given every possible consideration to the subject for which it was appointed, and having taken the opinions of Mr. Morgan, Actuary to the Equitable Assurance Office, and of other competent persons, it had digested a Plan, which, it conceives, is calculated to secure the objects of the meeting upon the most solid basis; of which the following are the fundamental principles:

1. This Society to be denominated "THE MEDICAL ANNUITANT AND BENEVOLENT SOCIETY."

2. Any Physician, Surgeon, or Apothecary, residing and regularly practising his profession, within England or Wales, is eligible to be admitted into the Society.

3. The objects of this Society are two-fold—1. To secure an annuity to those who have subscribed, according to the annexed scale of insurance, when they have attained the age of sixty years. 2. For affording relief to such Members of this Society as are in distressed circumstances, from mental or bodily infirmity, or other causes; although they may not have attained the age of sixty years.

4. For the above purposes, two funds shall be formed, each to be kept distinct and separate; one to be intitled, "THE ANNUITANT FUND;" the other "THE BENEVOLENT FUND."

5. This Society to be under the management of a Court of eighteen Directors, to be elected by the Members at large; three of whom are to go out of office annually, in rotation, and the vacancies be filled at a General Court of Members.

6. Every Member of the Society being of the Medical Profession, shall be eligible to the direction.

7. After the formation of the Society, every candidate must be proposed by two Members to the Court of Directors, and his admission be determined by ballot.

8. Every Member upon his admission shall pay the sum of one guinea.

9. Every Member, who subscribes to the ANNUITANT FUND, according to the proposed scale of insurance, and upon otherwise conforming to the rules of the Society, shall have, at sixty years of age, an annuity; which will at least be £50.

10. A certain part of the accumulated profits of the ANNUITANT FUND to be applied from time to time, at the discretion of the Court of Directors, to the increase of the annuities.

11. Any Member who shall have contributed to either Fund, to the amount of *twenty-five guineas* at one payment, or *thirty guineas* by subscriptions, may, if in distressed circumstances, be relieved from the BENEVOLENT FUND, at the discretion of the Court of Directors; but in no case shall such relief exceed the sum of £30 in one year.

12. No disbursement shall be made from the Funds, except for the necessary expenses, until the Society has been established *ten* years.

13. The admission fines, all bequests, benefactions, and voluntary subscriptions, to be appropriated solely to the BENEVOLENT FUND.

14. Contributors, who are *not* of the Medical Profession, to be considered as Honorary Members only; and are to have no vote in the appropriation of the Funds.

15. The accounts of the Society to be submitted to the Members, at certain General Courts.

It was *unanimously* Resolved, that the foregoing Plan should be adopted.

RESOLVED ALSO,

That the present Committee be requested to continue their services, and to draw up a Code of Regulations for the form and government of the concerns of the Society, upon the foregoing bases.

That Books, for the inscription of the names of those who intend, in any way, to contribute to the Funds of the Society, shall be opened at Messrs. CHILD's, Bankers, Temple Bar; and at the Bar of the FREEMASONS' TAVERN; and continue until Friday, the 26th of January 1816; where Plans of the Society shall be left for distribution.

That a Meeting be held on Monday, January 29th, 1816, at three o'clock, at this house, of every person who inscribed his name in the Books, or signified in writing, to any Member of the Committee*, previously to Friday, January the 26th, his desire to become a Member of the Society; in order to receive and take into consideration the Report of the Committee, to elect Directors, Trustees, &c.

That the thanks of this Meeting be given to the Chairman, Dr. LATHAM, as the Founder of this Society, for his polite and able conduct in the Chair.

That the Thanks of this Meeting be given to the Committee, for the trouble they have taken in arranging the Plan now brought forward, and agreed to.

Dec. 26, 1815. JOHN LATHAM, Chairman.

*TABLE shewing the Sum to be paid at One Payment, or the Sum to be paid Annually, in order to secure an Annuity of 50l. to the Subscriber during the Remainder of his Life, after having attained the Age of Sixty.*

| AGE. | SINGLE PAYMENT. | | ANNUAL PAYMENT. | | AGE. | SINGLE PAYMENT. | | ANNUAL PAYMENT. | |
|---|---|---|---|---|---|---|---|---|---|
| | £. | s. | £. | s. | | £. | s | £. | s. |
| 23 | 43 | 18 | 2 | 19 | 37 | 96 | 16 | 8 | 4 |
| 24 | 46 | 8 | 3 | 3 | 38 | 102 | 14 | 8 | 18 |
| 25 | 49 | 0 | 3 | 8 | 39 | 109 | 0 | 9 | 15 |
| 26 | 52 | 0 | 3 | 12 | 40 | 115 | 10 | 10 | 11 |
| 27 | 55 | 10 | 3 | 18 | 41 | 122 | 16 | 11 | 13 |
| 28 | 58 | 0 | 4 | 3 | 42 | 130 | 12 | 12 | 16 |
| 29 | 61 | 4 | 4 | 9 | 43 | 138 | 18 | 14 | 3 |
| 30 | 65 | 0 | 4 | 16 | 44 | 147 | 18 | 15 | 11 |
| 31 | 68 | 16 | 5 | 5 | 45 | 157 | 8 | 17 | 8 |
| 32 | 74 | 14 | 5 | 15 | 46 | 167 | 16 | 19 | 5 |
| 33 | 76 | 16 | 6 | 1 | 47 | 178 | 18 | 21 | 15 |
| 34 | 81 | 6 | 6 | 9 | 48 | 190 | 18 | 24 | 3 |
| 35 | 88 | 10 | 6 | 19 | 49 | 203 | 16 | 27 | 17 |
| 36 | 91 | 6 | 7 | 10 | 50 | 217 | 16 | 31 | 11 |

Signed, WILLIAM MORGAN.

* Dr. Latham, Dr. Clutterbuck, Dr. Bateman, Dr. Merriman, Mr. Thomson, Mr. Burrows, Mr. Shillito, Mr. Ogle, Mr. Tegart, Mr. Reg. Williams, Mr. Malim, Mr. P. Mathias, Mr. Hayes.

Any person being above *fifty* years of age may subscribe to the *Annuitant Fund*, as well as to the *Benevolent Fund;* but as no claim can be allowed till he has been ten years a Member, and as the chances of living ten years diminish as life advances, the single and annual payments to the *Annuitant Fund* will be regulated proportionally.

PRIZE QUESTIONS.—The Medical Society of Toulouse has proposed the following as the subject of a prize dissertation for the year 1817:

"What has been the advancement of practical surgery within the last thirty years? and to what is its progress to be attributed since the dissolution of the Royal Academy of Surgery of Paris?"

The prize will consist of a gold medal of the value of 300 francs.

II.—MEDICAL.

*Hooping Cough.*—Dr. *Clessilis*, of Coblentz, in his Essay on Hooping Cough, thinks it very important to diminish the quantum of blood in the lungs, and that the employment of emetics, especially of tartar emetic, is highly serviceable, if preceded by a local and sufficient evacuation of blood from the chest; and that this practice frequently cures the malady in the first stage. Antispasmodics, he conceives, are of no avail, unless preceded by the evacuant plan, and the use of emetics.

III.—PHARMACY.

Mr. Battley, whose improved method of preparing the narcotic vegetables, powders, and extracts, was detailed in the *Repository*, vol. iv. p. 197, is at present engaged in an extensive series of experiments on the opium of commerce, which will be followed up by a thorough investigation and accurate preparation of the opium of British growth, and every narcotic plant capable of being cultivated in this country.

IV.—MISCELLANEOUS.

*On the New Regulations of the Practice of Apothecaries, &c.*

"*To the* EDITOR *of the Morning Chronicle.*

"SIR, FROM the perusal of the very interesting account of the Anniversary Meeting of the Society for the Relief of the Widows and Orphans of Medical Men, in your paper a short time since, a doubt cannot exist but that you are as much the friend to Medical Science and its Honourable Professors, as you are known to be to Science in general. You seem, Sir, fully impressed with the utility of the Medical Profession, and the important services it renders to society; and to justly appreciate the benefits derived from the labours of the well-educated and experienced Medical Practitioner, whatever be his rank, and the evils that consequently result from the machinations and practices of the ignorant pretender.

"But although there be some enlightened persons who entertain similar views, yet it is astonishing, considering how intimately the interests and happiness of mankind are involved in every thing that affects the state of Medical Practice, that such total indifference should be evinced to the import and operation of the Act, passed in the last session of Parliament, for the better Regulation of the Practice of, by far the most numerous class of Practitioners—the Apothecaries.

"As this apathy can be ascribed to no other cause than to the want of information of the real objects of that measure, it is my present design to obtain that attention to the subject it ought to receive; and to point out, that it enforces an appropriate education, and com-

potent professional knowledge in every Apothecary, before he is allowed to undertake the charge of visiting and administering to the diseased.

"Hitherto, any person might practise Physic in any part of the kingdom, under the denomination of Apothecary, without education, or any proof of his abilities. Consequently, much mischief ensued; for the public having no guide to direct the judgment, could not discriminate between the competent and incompetent. Hence, too, the regularly educated and respectable Practitioner suffered in reputation by the arts and mal-practice of those who assumed his name and character.

"To prevent such impositions in future, and to secure Medical Practitioners, in whom there might be just confidence, the Act alluded to was solicited, and passed. It appears to effectually provide against the recurrence of such abuses.

"By this Act it is provided that,

"I. Every person intending, after the 1st of August 1815, to commence practising as an Apothecary, must undergo an examination by Twelve Examiners, appointed by the Society of Apothecaries, "*to ascertain his skill and abilities in the science and practice of Medicine,*" and to grant a Certificate that he is duly qualified to practise.

"But, previously to examination, each candidate must produce testimonials that he is of the age of 21, and that he has served an apprenticeship; has a competent knowledge of the Latin tongue; has attended certain courses of lectures on anatomy, physiology, chemistry, materia medica, and the theory and practice of medicine; and that he has attended a stated time to the practice of a public hospital. The actual examination of the candidate's attainments consists—1. In translating the Latin Pharmacopœia of the London College, and physicians' prescriptions; 2. In pharmaceutical chemistry; 3. Materia medica, or knowledge of the natural and artificial substances used in the cure of diseases, their virtues, doses, &c.; 4. Physiology, or the science which treats of the actions and powers of the animal body; 5. Of the knowledge of diseases, and of their treatment; 6. It is intended that botany, a science so indispensable to a correct knowledge of materia medica and pharmacy, shall form a part of the examination; but the Court of Examiners, being aware how little it has hitherto been cultivated, it is understood, waive it for the present, in order that students may have an opportunity in the ensuing summer of studying it.

"II. Every Apothecary is bound, under severe penalties, faithfully to make up and compound the prescriptions of physicians of the London College.

"III. Every Apothecary's shop is open to inspection, as to the goodness of his drugs, preparations, &c. by Examiners appointed for that purpose, who may destroy the same if of bad quality.

"IV. Every person practising as an Apothecary, without the certificate of examination, is liable to a penalty of twenty pounds each time he visits or prescribes medicine for the sick.

"V. Such persons so acting without the certificate, cannot recover any charge for medical advice, attendance, or medicines, in any court of law.

"VI. No person can act as an Assistant to any Apothecary, for

compounding and dispensing medicines, without examination, and a certificate of his competency.

" VII. For the information of the public, a list of every certificated Apothecary, and his place of residence, must be annually published.

" Such are the principal regulations of this Act, and of those who are appointed to carry it into execution; from which it is manifest, the public welfare is very properly the first object, while, when in full operation and effect, the Apothecary acquires no other advantage than protection from the intrusion of impostors into his profession, and a recognition of his right to the character and privileges of a lawful medical practiser—a distinction just and politic, and surely merited by that class to whose care and skill the health of nine-tenths of the population of the British Empire is committed.

" The dispensing Chemist and Druggist petitioned Parliament against the Bill, and are exempt from its operation; and are therefore not subjected to any test of their competency to make up prescriptions and dispense medicines; or to any inspection of the qualities of their drugs, &c. and are consequently, in this respect, absolutely without superintendance or controul. But if they prescribe medicines for the sick, they are then liable to information and prosecution, and the penalties for such offence.

" If these important enactments be faithfully and fairly executed, they must prove highly satisfactory to all ranks of society; and, I think, every one will coincide in opinion, that this Act is one in which the public have the highest possible degree of interest, and that they ought to be acquainted with its purport.

" The chief objects also of the Surgeons' Bill, which was introduced so late in the last session of Parliament, and withdrawn for amendment, were to prevent persons from exercising the art of surgery in any part of this kingdom, without examination and approval by the College of Surgeons, excepting those already in practice.

" Unfortunately, the Apothecary's Act is not so perfect as could be wished; a fault certainly not to be imputed to its suitors—for from various regulations and amendments introduced by the Peers, it was, when returned, rejected by the Commons, and therefore had twice to pass through both Houses. The consequence was, that there being barely time to get it through in that session, some errors that were discovered in it could not be corrected. But the Lord Chancellor observed, that it was in principle an excellent measure, and considering it rather an experimental one, its defects and omissions, when fully ascertained, could be easily amended at a future period.

" Perhaps no stronger evidence can be adduced of the inadequate education and unfitness, generally, of young men intending to practise physic, and hence of the necessity for these regulations, than the few candidates that have applied to the Court of Examiners of the Society of Apothecaries for examination of their qualifications. Not more than twenty have offered themselves; yet there are many hundreds of pupils in the London hospitals, otherwise eligible, but not possessing a competent degree of knowlege to become candidates.

" It is reported that on two examining days lately at the College

of Surgeons, 105 candidates passed, and received the diploma! It is evident the testimonials of eligibility, and the subjects of examination being different, that a candidate may pass there with great eclat, who has not the requisite qualifications for the examination at Apothecaries' Hall: thus, the former may be crowded with applicants, while the latter has few; owing to a conscious deficiency in those sciences that constitute the course of examination at the Hall, and, perhaps, a wish to acquire the knowledge of them previously to presenting themselves. If the last be really the motive, it assuredly is very commendable. But, I fear, and indeed positively know, that many students have imbibed a notion, that if they possess a surgeon's diploma, they may legally, and with impunity, practise physic, without the certificate of an Apothecary.

"As this impression is most erroneous, and might prove exceedingly injurious to many young men intending to settle, whose pecuniary means are commonly very scanty, it cannot, for the sake of the public, as well as of those so erring in judgment, be too soon noticed and refuted. They who commenced practice as Apothecaries, since the passing of the Act, without certificates, are—

"1. Ineligible to any public appointment.

"2. Are liable to certain fines and penalties, according to the fourth, before-cited, provision.

"3. They have no legal claim for any remuneration: and whatever be the amount of their book debts, should any practitioner become obnoxious to his neighbours, the whole of this property will be endangered.

"4. They risk the degradation of their professional character and reputation.

"5. The probable compulsory relinquishment of business, when they have incurred the expence of settling, to comply with the regulations which the law and the Court of Examiners of the Society of Aoothecaries have imposed*.

"The British Legislature has at length enacted some provisions to guard the public health from the practices of the grossly ignorant. On public grounds purely I have noticed and detailed some of the most important of the enactments, and made them the subject of animadversion and explanation; and as a caution to those individuals most immediately concerned, from motives of humanity, I have set forth some of the evils they will incur, who choose to set at naught and violate institutes so wise and patriotic.

Nov. 29, 1815. "I am, Sir, your's, &c. PHILO-MEDICUS."

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* There are two other dilemmas we apprehend, to which those entering into practice since August 1st, as Apothecaries, and acting without the certificate, will be exposed; and which *Philo-Medicus* has omitted:—1. That having no real designation or rights, any contract of co-partnership with a legal Apotheeary would be liable to be vitiated, at the pleasure of the partner practising before the passing of the Act, or having a certificate:—and, 2. such pretended Apothecaries will have no exemption to plead from serving on juries, leets, or parochial offices.

*A General Bill of the Diseases, Casualties, Christenings, and Burials, from December* 14, 1814, *to December* 13, 1815. *By the Parish Clerks of London.*

| | | | | | |
|---|---|---|---|---|---|
| Abortive and Stillborn | 804 | Epilepsy | 1 | Palpitation of the heart | 6 |
| Abscess | 105 | Evil | 7 | Palsy | 163 |
| Aged | 1757 | Fevers of all kinds | 1309 | Pleurisy | 18 |
| Ague | 5 | Fistula | 3 | Quinsy | 5 |
| Apoplexy and Suddenly | 421 | Flux | 65 | Rash | 1 |
| Asthma | 680 | French Pox | 22 | Rheumatism | 9 |
| Bedridden | 2 | Gout | 67 | Scrophula | 3 |
| Bile | 5 | Gravel, Stone, Strangury | 16 | Scurvy | 4 |
| Bleeding | 23 | Grief | 5 | Small Pox | 725 |
| Bursten and Rupture | 34 | Headmoldshot, Horseshoe head, & Water in the Head | 383 | Sore Throat | 5 |
| Cancer | 88 | Imposthume | 4 | Sores and Ulcers | 11 |
| Chicken Pox | 2 | Inflammation | 953 | Spasm | 36 |
| Childbed | 232 | Influenza | 1 | St. Anthony's Fire | 9 |
| Colds | 18 | Jaundice | 90 | Stoppage in the Stomach | 23 |
| Colick, Gripes, &c. | 26 | Lethargy | 1 | Surfeit | 1 |
| Consumption | 4210 | Livergrown | 46 | St. Vitus's Dance | 2 |
| Convulsions | 3524 | Lumbago | 3 | Teeth | 447 |
| Cough and Hooping Cough | 729 | Lunatic | 228 | Thrush | 113 |
| Cramp | 4 | Measles | 711 | Tumor | 3 |
| Croup | 87 | Miscarriage | 2 | Water in the Chest | 30 |
| Diabetes | 6 | Mortification | 306 | Worms | 3 |
| Dropsy | 792 | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Bit by Dogs | 2 | Found dead | 25 | Overlaid | 1 |
| Broken limbs | 1 | Fractured | 2 | Poisoned | 1 |
| Bruised | 2 | Frighted | 5 | Scalded | 10 |
| Burnt | 32 | Killed by falls and several other accidents | 76 | Shot | 1 |
| Drowned | 152 | Killed themselves | 47 | Suffocated | 9 |
| Excessive drinking | 8 | Murdered | 1 | Total of Casualties | 363 |
| Executed* | 8 | | | | |

Christened.....Males 12,281.....Females 11,133.....In all 23,414
Buried.....Males 9,892.....Females 9,678.....In all 19,560

Whereof have died,

| | | | | | |
|---|---|---|---|---|---|
| Under 2 years of age | 5200 | Between 30 and 40 | 1824 | Between 80 and 90 | 674 |
| Between 2 and 5 | 1916 | 40 50 | 2075 | 90 100 | 167 |
| 5 10 | 870 | 50 60 | 1896 | 100 years of age | 2 |
| 10 20 | 677 | 60 70 | 1611 | 101 | 1 |
| 20 30 | 1425 | 70 80 | 1221 | 105 | 1 |

Decreased in the Burials this year 223.

* There have been executed in the City of London and County of Surry, 20; of which Number 8 only have been reported to be buried within the Bills of Mortality.

## V.—NOTICES OF LECTURES.

*St. Bartholomew's Hospital.* — The Spring Courses of Lectures will commence on Saturday, January 20th. ---- On the Theory and Practice of Medicine, by Dr. Hue: on Anatomy and Physiology, by Mr. Abernethy: on the Theory and Practice of Surgery, by Mr. Abernethy: on Chemistry and Materia Medica, by Dr. Hue: on Midwifery, by Dr. Gooch: Anatomical Demonstrations, by Mr. Stanley. Particulars may be obtained by application to Mr. Wheeler, Apothecary at the Hospital.

Dr. Clutterbuck will begin his Spring Course of Lectures on the Theory and Practice of Physic, Materia Medica, and Chemistry, about the middle of January, at ten o'clock in the morning, at No. 1. Crescent, New Bridge Street, where particulars may be had.

Mr. Clarke will commence his next Course of Lectures on Midwifery and the Diseases of Women and Children, on Wednesday, Jan. 24. For particulars, apply to Mr. Clarke, 10, Saville Row.

Mr. C. Bell will re-commence his Surgical Lectures on Tuesday evening, the 23d inst. at seven. He will give a Clinical Lecture on the cases in the Hospital every week during the Course.

*Russell Institution.*---Mr. Singer will commence a Course of Lectures on the Elements of Electrical Science; including Galvanism and Electro-Chemistry; about the end of January.

For the Spring Courses of Lectures at the Theatre of Anatomy, &c. Blenheim Street, see the Advertisement on the cover.

# A METEOROLOGICAL TABLE,

*From the 21st of November, to the 20th of December,* 1815,

KEPT AT RICHMOND, YORKSHIRE,

230 Miles NW from London.

| D. | Barometer. Max. | | Barometer. Min. | | Therm. Max | Therm. Min. | Rain Gage. | Winds. | Weather. |
|---|---|---|---|---|---|---|---|---|---|
| 21 | 29 | 53 | 29 | 50 | 40 | 30 | | N. | 1 S.. and Sh. of Snow. |
| 22 | 29 | 83 | 29 | 70 | 38 | 31 | melted sn | NW. | 1 S.. and Sh. of Snow. |
| 23 | 29 | 97 | 29 | 91 | 36 | 33 | 21 | NW. | 1 S... |
| 24 | 30 | 15 | 30 | 10 | 44 | 36 | | WNW. | 1 S. 2 Cy.. |
| 25 | 30 | 25 | 30 | 23 | 43 | 34 | | N. | 1 S. |
| 26 | 30 | 17 | 30 | 05 | 42 | 34 | | NW. | 1 S. 2 Cy... |
| 27 | 29 | 94 | 29 | 80 | 39 | 33 | | N. | 1 S.. 2 Sh. of Sleet. |
| 28 | 29 | 65 | 29 | 59 | 37 | 30 | | NW. | 1 Sh. of Snow and S. |
| 29 | 29 | 65 | 29 | 47 | 39 | 27 | | SW.. | 1 Cy... 2 S.. 3 Sn. 4 Stl.. |
| 30 | 29 | 35 | 29 | 33 | 38 | 31 | 51 | SE.. | 1 Cy... 2 R.... |
| 1 | 29 | 53 | 29 | 36 | 42 | 37 | 18 | S.SW. | 1 R.. 2 Thund. & Light. |
| 2 | 29 | 68 | 29 | 62 | 44 | 41 | 09 | SW. | 1 S.. 2 R. |
| 3 | 29 | 54 | 29 | 27 | 44 | 40 | 02 | SE. | 1 Mist.., 4 R. |
| 4 | 29 | 55 | 29 | 46 | 42 | 37 | 01 | WbN.. | 1 Cy.. 2 S.. & Sh. |
| 5 | 29 | 04 | 28 | 98 | 42 | 35 | | S.SW... | 1 Cy.... 4 Starlight.. |
| 6 | 29 | 70 | 29 | 47 | 39 | 33 | | NW.. | 1 S.. 3 R. 4 Snow. |
| 7 | 29 | 83 | 29 | 81 | 34 | 32 | | NE.. | 1 Sh. of Sn. & S.. 4 Cy... |
| 8 | 29 | 81 | 29 | 81 | 34 | 32 | | NE. | 1 Cy... |
| 9 | 30 | — | 29 | 94 | 35 | 31 | | NNE. | 1 Cy... |
| 10 | 30 | 03 | 29 | 96 | 36 | 31 | melted sn | NW.. | 1 Cy.. 2 S.... 4 Moon.. |
| 11 | 29 | 90 | 29 | 80 | 40 | 32 | 26 | SW.. | 1 S.. 4 Cy.. |
| 12 | 29 | 84 | 29 | 63 | 43 | 36 | | W..SW... | 1 S.... 4 Moon.. |
| 13 | 29 | 82 | 29 | 60 | 43 | 35 | | W.. | 1 S.... |
| 14 | 29 | 49 | 29 | 15 | 43 | 38 | 09 | W..SW... | 1 S. & Sh. |
| 15 | 28 | 89 | 28 | 50 | 42 | 31 | | WSW...WNW.. | 1 S..& Sh.. 4 Moon..&Sh. of Sn. |
| 16 | 28 | 56 | 28 | 42 | 34 | 24 | | WbN.. | 1 S... 2 Sh. of Sn. 4Mn... |
| 17 | 28 | 88 | 28 | 75 | 31 | 25 | | NW. | 1 S... |
| 18 | 29 | 09 | 29 | 05 | 31 | 22 | | WbN. | 1 S..&Sh. of Snow. 2 S...4Mns.... |
| 19 | 29 | 09 | 28 | 82 | 31 | 25 | | WbN.SE. | 1 S.... 3 Cy.... |
| 20 | 29 | 04 | 28 | 79 | 34 | 31 | | NE. | 1 Snow.... |

## *Observations on Diseases at Richmond.*

The quantity of Rain during the month of November was 1 inch 14-100. Catarrhal and Febrile complaints have prevailed much during this period. Hooping cough has not spread so much as might have been expected, probably on account of children being kept more in the house at this severe season. *Typhus* has made its appearance with the cold weather, but has not been very fatal. The other diseases under treatment have been *Erysipelas, Gastrodynia, Hæmaturia, Hæmoptysis, Ophthalmia, Phthisis Pulmonalis, Podagra,* and *Rheumatismus.*

# METEOROLOGICAL TABLE FOR LONDON,

*From the 20th of NOVEMBER, to the 19th of DECEMBER, 1815,*

By Messrs. HARRIS & Co.

*Mathematical Instrument Makers, 50, High Holborn.*

| M. | D. | Therm. | | | Barom. | | Rain Guage | Hygrom. Dry. | | Hygrom. Damp. | | Winds. | | Atmo. Variation. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 | 34 | 41 | 39 | $29^{9}$ | $40^{8}$ | | | | 8 | 7 | NE | NNE | Clo. | Fine | ..... |
| | 21 | 39 | 43 | 40 | $29^{7}$ | $39^{6}$ | | | | 6 | 5 | NE va | N | Clo. | ..... | ..... |
| | 22 | 32 | 36 | 33 | $29^{8}$ | $59^{9}$ | | | | 6 | 5 | N | NE | Clo. | Fine | ..... |
| | 23 | 30 | 38 | 34 | 30 | $30^{5}$ | | | | 6 | 8 | NNE | N | Clo. | Fine | ..... |
| | 24 | 33 | 36 | 33 | $30^{7}$ | $38^{8}$ | | | | 7 | 10 | N | NE | Clo. | ..... | Fine |
| ◐ | 25 | 35 | 41 | 36 | $30^{9}$ | $30^{5}$ | | | | 12 | 13 | NNE | NE | Clo. | Fine | Clo. |
| | 26 | 35 | 45 | 37 | $30^{6}$ | $30^{5}$ | .03 | | | 10 | 10 | NE | NNE | Clo. | ..... | Rain |
| | 27 | 36 | 38 | 34 | $30^{3}$ | $60^{1}$ | | | | 12 | 7 | NE | NNE | Clo. | ..... | ..... |
| | 28 | 33 | 40 | 34 | 30 | | | | | 8 | 9 | NW | N | Clo. | ..... | ..... |
| | 29 | 30 | 37 | 32 | 30 | 90 | | | | 7 | 10 | SW | S va | Fog | Clo. | ..... |
| | 30 | 37 | 45 | 50 | $29^{9}$ | $29^{8}$ | | | | 9 | 24 | SE | SSW | Clo. | ..... | Rain |
| ● | 1 | 50 | 51 | 50 | $29^{7}$ | 30 | | | | 24 | 22 | SW | S | Clo. | Fine | ..... |
| | 2 | 50 | 50 | 50 | $30^{2}$ | $30^{1}$ | | | | 20 | 20 | SSW | SSW | Clo. | Fine | ..... |
| | 3 | 48 | 52 | 44 | 30 | $29^{9}$ | | | | 16 | 13 | SE | SW | Fog | Clo. | ..... |
| | 4 | 45 | 47 | 44 | $29^{8}$ | $29^{8}$ | | | | 13 | 6 | S | SW | Fog | Fine | ..... |
| | 5 | 42 | 47 | 48 | $29^{9}$ | | .23 | | | 7 | 15 | W va | NW | Clo. | Rain | ..... |
| | 6 | 40 | 44 | 41 | $29^{4}$ | $39^{3}$ | .25 | | | 7 | 10 | W va | N | Clo. | ..... | ..... |
| | 7 | 39 | 36 | 30 | $29^{8}$ | 08 | | | 0 | 7 | 0 | NE | NE | Clo. | Fine | ..... |
| | 8 | 26 | 30 | 29 | 30 | 60 | | 0 | 0 | 0 | 0 | NE | NE | Fine | ..... | ..... |
| ◑ | 9 | 25 | 32 | 31 | $30^{1}$ | | | 0 | | 0 | 1 | N | NE | Fine | ..... | ..... |
| | 10 | 30 | 35 | 32 | $30^{1}$ | $30^{5}$ | | | | 5 | 5 | N | NNW | Fine | ..... | ..... |
| | 11 | 31 | 42 | 35 | $30^{4}$ | $30^{4}$ | | | | 7 | 9 | NNW | SW | Fine | ..... | ..... |
| | 12 | 37 | 41 | 35 | $30^{4}$ | $30^{4}$ | | | | 10 | 9 | W va | SW | Fine | ..... | ..... |
| | 13 | 39 | 45 | 37 | $30^{2}$ | $30^{3}$ | .14 | | | 10 | 13 | SW | WNW | Fine | Rain | Fine |
| | 14 | 35 | 47 | 40 | $30^{3}$ | | | | | 12 | 12 | SW | SW | Fog | Fin | ..... |
| | 15 | 45 | 49 | 45 | $29^{8}$ | $29^{5}$ | .03 | | | 12 | 12 | SW | SW | Clo. | ..... | Fine |
| ○ | 16 | 49 | 53 | 36 | $29^{1}$ | 50 | .03 | | | 15 | 8 | WSW | WSW | Clo. | ..... | Fine |
| | 17 | 35 | 37 | 32 | 29 | $39^{3}$ | | | | 4 | 5 | W va | W va | Clo. | Fine | ..... |
| | 18 | 30 | 37 | 32 | $29^{7}$ | | | | | 3 | 6 | SW | WSW | Clo. | ..... | Fine |
| | 19 | 28 | 34 | 33 | $29^{6}$ | $67^{4}$ | .19 | | | 3 | 9 | SW | E | Fog | Snw | ..... |

*The quantity of Rain fallen, 45-100ths.*

*** The Hygrometer used for this Table is De Luc's; before, it was that most commonly in use, the grism of the wild oat.

## BILL OF MORTALITY *from November 21, to December 19,* 1815.

| | | Nov. 28. | Dec. 5. | Dec. 12. | Dec. 19. | |
|---|---|---|---|---|---|---|
| CHRISTENED. | Males | 198 | 342 | 492 | 168 | |
| | Females | 168 | 291 | 503 | 151 | |
| | | 366 | 633 | 1002 | 319 | Total, 2320. |
| BURIED | Males | 225 | 382 | 646 | 191 | |
| | Females | 202 | 356 | 608 | 208 | |
| | | 427 | 648 | 1254 | 399 | Total, 9768. |
| OF WHOM HAVE DIED | Under 2 Years | 123 | 170 | 226 | 109 | |
| | Betw. 2 and 5 | 49 | 69 | 120 | 39 | |
| | 5 and 10 | 26 | 39 | 56 | 16 | |
| | 10 and 20 | 18 | 29 | 38 | 17 | |
| | 20 and 30 | 31 | 54 | 99 | 29 | |
| | 30 and 40 | 53 | 71 | 115 | 36 | |
| | 40 and 50 | 45 | 70 | 126 | 41 | |
| | 50 and 60 | 39 | 63 | 112 | 67 | |
| | 60 and 70 | 30 | 50 | 102 | 49 | |
| | 70 and 80 | 20 | 41 | 96 | 25 | |
| | 80 and 90 | 11 | 25 | 51 | 11 | |
| | 90 and 100 | 2 | 7 | 14 | 2 | |
| SMALL POX | | 16 | 41 | 60 | 15 | |

Total of Small Pox.....129

# A REGISTER OF DISEASES

*Between NOVEMBER 20th and DECEMBER 19th, 1815.*

| DISEASES. | Total. | Fatal. | DISEASES. | Total. | Fatal. |
|---|---|---|---|---|---|
| Abortio | 24 | | Entrodynia | 14 | |
| Abscessio | 23 | | Epilepsia | 8 | |
| ——— *psoas* | 1 | 1 | Epistaxis | 4 | |
| Amaurosis | 3 | | Erysipelas | 30 | |
| Amenorrhœa | 28 | | Erythema *læve* | 2 | |
| Amentia | 1 | | —— *crania* | 1 | |
| Anasarca | 31 | 6 | Erythismus *Merc* | 1 | |
| Angina Pectoris | 1 | | Febris *intermittens* | 20 | |
| Anorexia | 8 | | —— *catarrhalis* | 120 | |
| Aphtha *lactentium* | 11 | | —— *Synocha* | 19 | |
| ——— *anginosa* | 1 | | —— *Typhus mitior* | 17 | 1 |
| Apoplexia | 12 | 8 | —— *Typhus gravior* | 8 | 2 |
| Ascites | 9 | 2 | —— *Synochus* | 44 | |
| Asthenia | 33 | | —— *Puerpera* | 1 | |
| Asthma | 138 | 12 | —— *remit. Infant* | 21 | |
| Asphyxia | 1 | 1 | Fistula | 5 | |
| Atrophia | 2 | | Furunculus | 10 | |
| Bronchitis *acuta* | 13 | 3 | Gastritis | 3 | 1 |
| ——— *chronica* | 19 | 1 | Gastrodynia | 23 | |
| Bronchocele | 1 | | Gonorrhœa | 28 | |
| Caligo | 2 | | Hæmatemesis | 3 | |
| Cancer | 2 | 1 | Hæmaturia | 2 | |
| Carbunculus | 3 | | Hæmoptöe | 21 | 1 |
| Cardialgia | 15 | | Hæmorrhagia | 1 | 1 |
| Carditis | 2 | | Hæmorrhois | 28 | |
| Catarrhus | 215 | | Hemiplegia | 13 | |
| Cephalalgia | 17 | | Hepatalgia | 1 | |
| Cephalæa | 9 | | Hepatitis | 27 | 1 |
| Chlorosis | 9 | | Hernia | 8 | |
| Chorea | 2 | | Herpes *Zoster* | 10 | |
| Cholera | 19 | | ——— *circinatus* | 3 | |
| Colica | 36 | | ——— *labialis* | 3 | |
| —— *Pictonum* | 4 | | ——— *præputialis* | 1 | |
| Convulsio | 21 | 3 | Hydrarthyrus | 3 | |
| Cynanche *Tonsillaris* | 37 | | Hydrocele | 1 | |
| ——— *maligna* | 1 | | Hydrocephalus | 8 | 5 |
| ——— *Trachealis* | 1 | | Hydrothorax | 7 | 4 |
| ——— *Parotidea* | 5 | | Hypochondriasis | 9 | |
| ——— *Pharyngea* | 1 | | Hysteralgia | 1 | |
| Delirum Tremens | 2 | | Hysteria | 28 | |
| Diabetes | 1 | | Hysteritis | 1 | |
| Diarrhœa | 86 | 1 | Ichthyosis | 2 | |
| Dysenteria | 11 | | Icterus | 20 | |
| Dyspepsia | 89 | | Impetigo *erysipelatodes* | 1 | |
| Dyspnœa | 26 | | ——— *scabida* | 2 | |
| Dysuria | 10 | | Ischias | 4 | |
| Ecthyma | 5 | | Ischuria | 9 | |
| Eczema | 1 | | Lepra | 3 | |
| Eneuris | 4 | | Leucorrhœa | 29 | |
| Enteritis | 8 | 1 | Lichen *simplex* | 2 | |

| DISEASES. | Total. | Fatal. | DISEASES. | Total. | Fatal. |
|---|---|---|---|---|---|
| Lithiasis | 1 | | Porrigo *favosa* | 2 | |
| Lumbago | 7 | | Prolapsus | 2 | |
| Mania | 9 | | Prurigo *mitis* | 2 | |
| Melancholia | 5 | | ——— *senilis* | 5 | |
| Menorrhagia | 24 | | Psoriasis *guttata* | 4 | |
| Morbi *Infantiles** | 112 | 3 | ——— *inveterata* | 3 | |
| ——— *Biliosi** | 76 | | Purpura *hæmorrhagia* | 1 | 1 |
| Nephralgia | 1 | | Pyrosis | 9 | |
| Nephristis | 5 | | Rachitis | 2 | |
| Obstipatio | 27 | | Rheumatismus *acutus* | 63 | 1 |
| Odontalgia | 18 | | ——— *chronicus* | 82 | |
| Ophthalmia | 46 | | Rubeola | 84 | 14 |
| Otalgia | 5 | | Scabies | 57 | |
| Palpitatio | 9 | | Scarlatina *simplex* | 32 | 2 |
| Paralysis | 12 | 1 | ——— *anginosa* | 4 | |
| Paronychia | 4 | | ——— *maligna* | 1 | |
| Pemphigus | 1 | | Scorbutus | 1 | |
| Pericarditis | 1 | | Scrofula | 10 | |
| Peripneumonia | 25 | 1 | Spasmi | 18 | |
| Peritonitis | 3 | | Strictura | 8 | |
| Pernio | 19 | | Strophulus *intertinctus* | 4 | |
| Pertussis | 44 | 4 | Syncope | 3 | |
| Phlegmasia *dolens* | 1 | | Syphilis | 51 | |
| Phlogosis | 14 | | Tabes Mesenterica | 12 | 2 |
| Phrenitis | 1 | | Vaccinia | 43 | |
| Phthisis *Pulmonalis* | 45 | 20 | Varicella | 4 | |
| Physconia | 1 | | Variola | 26 | 5 |
| Plethora | 4 | | Vermes | 35 | |
| Pleuritis | 33 | 1 | Vertigo | 18 | |
| Pleurodyne | 13 | | Urticaria *febrilis* | 8 | |
| Pneumonia | 75 | 14 | | | |
| Podagra | 26 | | Total Number of Cases | 3900 | |
| Porrigo *larvalis* | 2 | | | | |
| ——— *scutulata* | 4 | | Total of Deaths | | 125 |

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct heads; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Considering that the mortality of the *General Bill* for 1814 greatly exceeds the averaged standard, the mortality of the present year may be estimated as very high. Small Pox and Measles appear to have committed great ravages; the deaths from the former have increased, the latter have diminished.

The brumal ingress has been portentous. All the varieties of temperature, of storms, and of sickness, have characterized the past month. The mortality has been enormous. The deaths in the Bill of Mortality for the week from December the 5th to the 12th, amount to 1254; a number above that of a whole month in more favourable seasons.

Diseases partaking of the inflammatory character have been most prevalent, although they may be chiefly classed under *Febres* or *Pneumonia*. Of the former, catarrhal fever has been very general and severe; and indeed, has been considered by several of our Reporters, to be epidemic in a high

degree; but this in particular districts of the town only, and chiefly in the south west of it. These cases were characterized by rigors, followed by heat of skin, quick pulse, thirst, violent head-ache, and a general sensation of great fatigue. The eyes were generally suffused, and impatient of light; and both them and the nostrils discharged a hot, acrid serum, which sometimes excoriated the cheeks and the upper lip. Cough generally supervened. The treatment was very simple; most of the cases yielded to brisk purging and diaphoretics. One of our Reporters states, that after the febrile action had subsided, he found that the cough was soon allayed by small doses of ipecacuanha combined with extract of belladonna, which acted more efficaciously for that purpose than any preparations of opium.

*Rubeola* is spreading and is very fatal. Of the mortality from this disease, the opinion we long since advanced, that it was confined principally to the poorest classes, and originated from neglect and ignorance, experience fully confirms. Most of the deaths reported are the patients of public charities. One of our Reporters, having charge of a large Infirmary, has recorded 27 cases in the present Register; seven of which he lost; and four of them under typhoid symptoms. Of the whole of the deaths, three only were in private practice.

*Pertussis* also has been very severe and dangerous.

Of *Cynanche* under any form there has been less than usual.

*Scarlatina*, which shewed a formidable aspect in our last, is nearly extinguished. More than half the number of the cases entered were in one Reporter's practice in the western district; and he returns two being dead under the simple form of that disease.—certainly now a rare circumstance.

*Examinatio post mortem.* — The fatal case of *Gastritis* terminated by ulceration of the inner coat of the stomach, and effusion of lymph upon the external surface of it. From the extent of the inflammation, a rupture of a vein took place, which occasioned a hæmorrhage into the stomach and intestines, and this proved the immediate cause of death.

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## *Monthly Prices of* SUBSTANCES *employed in* PHARMACY.

| | | S. | D. |
|---|---|---|---|
| Acaciæ Gummi elect. | lb. | 3 | 6 |
| Acidum Citricum | | 34 | 0 |
| —— Benzoicum | unc. | 6 | 0 |
| —— Sulphuricum | P. lb. | 0 | 8 |
| —— Muriaticum | | 2 | 0 |
| —— Nitricum | | 4 | 0 |
| —— Aceticum | cong. | 4 | 6 |
| Alcohol | M. lb. | 5 | 0 |
| Æther sulphuricus | | 10 | 6 |
| —— rectificatus | | 12 | 0 |
| Ærugo | lb. | 8 | 6 |
| Aloes spicatæ extractum | | 6 | 9 |
| —— vulgaris extractum | | 5 | 0 |
| Althææ Radix | | 1 | 3 |
| Alumen | | 0 | 6 |
| Ammoniæ Muriatis | | 2 | 6 |
| —— Subcarbonas | | 4 | 0 |
| Amygdalæ dulces | | 4 | 6 |
| Ammoniacum (Gutt.) | | 16 | 0 |
| —— (Lumps) | | 5 | 0 |
| Anthemidis Flores | | 2 | 3 |
| Antimonii oxydum | | 7 | 0 |
| —— sulphuretum | | 1 | 3 |
| Antimonium Tartarizatum | | 7 | 0 |
| Arsenici Oxydum | | 1 | 3 |
| Assafœtidæ Gummi-resina | lb. | 5 | 0 |
| Aurantii Cortex | | 4 | 6 |
| Argenti Nitras | unc. | 7 | 0 |

| | | S. | D. |
|---|---|---|---|
| Balsamum Peruvianum | lb. | 30 | 0 |
| —— Tolutanum | | 22 | 0 |
| Benzoinum elect. | | 14 | 0 |
| Calamina præparata | | 0 | 6 |
| Calumbæ Radix | | 3 | 6 |
| Cambogia | | 9 | 6 |
| Camphora | | 8 | 6 |
| Canellæ Cortex | | 4 | 3 |
| Cardamomi Semina opt. | lb. | 9 | 0 |
| Cascarillæ Cortex | | 4 | 6 |
| Castoreum | unc. | 5 | 0 |
| Catechu Extractum | lb. | 3 | 6 |
| Cetaceum | | 3 | 0 |
| Cera alba | | 4 | 0 |
| —— flava | | 3 | 0 |
| Cinchonæ cordifoliæ Cortex (yellow) | | 8 | 0 |
| —— lancifoliæ Cortex (quilled) | | 10 | 6 |
| —— oblongifoliæ Cortex (red) | | 16 | 0 |
| Cinnamomi Cortex | | 20 | 0 |
| Coccus (Cocinella) | unc. | 3 | 3 |
| Colocynthidis Pulpa | lb. | 30 | 0 |
| Copaiba | | 6 | 6 |
| Colchici Radix | | 3 | 0 |
| Croci stigmata | unc. | | |
| Cupri sulphas | lb. | 1 | 0 |
| Cuprum ammoniatum | | 14 | 0 |
| Cusparia Cortex | | 4 | 0 |
| Confectio aromatica | | 20 | 0 |

| | | S. | D. |
|---|---|---|---|
| Confectio Aurantiorum | | 3 | 6 |
| —— Opii | | 6 | 9 |
| —— Rosæ caninæ | | 2 | 0 |
| —— Rosæ gallicæ | | 2 | 5 |
| —— Sennæ | | 1 | 8 |
| Emplastrum Lyttæ | | 7 | 6 |
| —— Hydrargyri | | 3 | 6 |
| Extractum Belladonnæ | unc. | 1 | 6 |
| —— Cinchonæ | | 2 | 6 |
| —— Cinchonæ resinosum | | 5 | 0 |
| —— Colocynthidis | | 4 | 0 |
| —— Colocynthidis comp. | | 1 | 6 |
| —— Conii | | 0 | 8 |
| —— Elaterii | | 24 | 0 |
| —— Gentianæ | | 0 | 6 |
| —— Glycyrrhizæ | lb. | 4 | 6 |
| —— Hæmatoxyli | unc. | 0 | 8 |
| —— Humuli | | 0 | 8 |
| —— Hyoscami | unc. | 1 | 0 |
| —— Jalapæ | 2s. 6d. Res. | 3 | 6 |
| —— Opii | | 3 | 6 |
| —— Papaveris | | 1 | 0 |
| —— Rhei | | 2 | 6 |
| —— Sarsaparillæ | | 1 | 6 |
| —— Taraxaci | | 0 | 8 |
| Ferri subcarbonas | lb. | 1 | 4 |
| — sulphas | | 1 | 3 |
| Ferrum ammoniatum | | 5 | 0 |
| —— tartarizatum | | 5 | 0 |
| Galbani Gummi-resina | | 12 | 0 |
| Gentianæ Radix elect | | 1 | 6 |
| Guaiaci resina | | 6 | 6 |
| Hydrargyrum purificatum | | 6 | 0 |
| —— præcipitatum album | | 9 | 0 |
| —— cum creta | | 6 | 0 |
| Hydrargyri Oxymurias | unc. | 0 | 9 |
| —— Submurias | | 0 | 9 |
| —— Nitrico-Oxydum | | 0 | 9 |
| —— Oxydum Cinereum | | 1 | 4 |
| —— Oxydum rubrum | | 5 | 0 |
| —— Sulphuretum nigrum | | 0 | 4 |
| —— —— rubrum | | 0 | 8 |
| Hellebori nigri Radix | lb. | 2 | 6 |
| Ipecacuanhæ Radix | | 18 | 0 |
| —— Pulvis | | 19 | 0 |
| Jalapæ Radix | | 7 | 0 |
| —— Pulvis | | 8 | 0 |
| Kino | | 12 | 0 |
| Liquor Plumbi subacetatis | M. lb. | 1 | 8 |
| — Ammoniæ | | 3 | 6 |
| — Potassæ | | 1 | 0 |
| Linimentum Camphoræ comp. | | 6 | 6 |
| —— saponis comp. | | 1 | 0 |
| Lichen | lb. | 1 | 4 |
| Lyttæ | | 14 | 0 |
| Magnesia | | 9 | 0 |
| Magnesiæ Carbonas | | 3 | 6 |
| —— Sulphas, opt. | | 1 | 0 |
| Manna optima | | 8 | 0 |
| — communis | | 5 | 6 |
| Moschus pod. (30s.) | in gr. unc. | 40 | 0 |
| Mastiche | lb. | 7 | 0 |
| Myristicæ Nuclei | | 20 | 0 |
| Myrrha elect. | | 8 | 0 |
| Olibanum | | 4 | 6 |
| Opoponacis gummi resina | | 26 | 0 |
| Opium (Turkey) | | 36 | 0 |
| Opium (East India) | | 37 | 0 |
| Oleum Æthereum | oz. | 2 | 0 |
| — Amygdalarum | lb. | 3 | 6 |
| — Anisi | unc. | 2 | 9 |
| — Anthemidis | | 6 | 6 |
| — Casiæ | | 9 | 0 |
| — Caryophylli | | 6 | 6 |
| — Cajuputi | | 7 | 0 |
| — Carui | | 1 | 6 |
| — Juniperi Aug. | | 4 | 0 |
| — Lavandulæ | | 5 | 0 |
| — Lini | cong. | 6 | 6 |
| — Menthæ piperitæ | unc. | 4 | 0 |
| — Menthæ viridis Ang. | | 4 | 6 |

| | | S. | D. |
|---|---|---|---|
| Oleum Pimentæ | unc. | 6 | 0 |
| — Ricini optim. | (per bottle) | 10 | 8 |
| — Rosmarini | unc. | 0 | 9 |
| — Succini 2s. 4d. —— resk. | | 4 | 6 |
| — Sulphuratum | P. lb. | 1 | 6 |
| — Terebinthinæ | | 1 | 6 |
| — —— rectificatum | | 2 | 0 |
| Olivæ Oleum | cong. | 22 | 0 |
| — Oleum secundum | | 14 | 0 |
| Papaveris Capsulæ | (per 100) | 3 | 0 |
| Plumbi subcarbonas | lb. | 0 | 8 |
| — Superacetas | | 2 | 4 |
| — Oxydum semi-vitreum | | 0 | 8 |
| Potassæ Fusa | unc. | 0 | 0 |
| — cum Calce | | 0 | 6 |
| Potassæ Nitras | lb. | 1 | 6 |
| — Acetas | | 9 | 6 |
| — Carbonas | | 4 | 6 |
| — Supercarbonas | | 1 | 6 |
| — Sulphas | | 1 | 8 |
| — Sulphuretum | | 2 | 6 |
| — Supersulphas | | 0 | 6 |
| — Tartras | | 3 | 6 |
| — Supertartras | | 1 | 10 |
| Pilulæ Hydrargyri | unc. | 0 | 9 |
| Pulvis Antimonialis | | 0 | 8 |
| — Coutrayervæ comp. | | 0 | 6 |
| — Tragacanthæ comp. | | 0 | 6 |
| Resina Flava | lb. | 0 | 5 |
| Rhei Radix (Russia) | | 38 | 0 |
| —— (East India) | | 14 | 0 |
| Rosæ petala | | 12 | 0 |
| Sapo (Spanish) | | 2 | 6 |
| Sarsaparillæ Radix | | 8 | 0 |
| Scammoneæ Gummi-Resina | unc. | 3 | 6 |
| Scillæ Radix siccat. | lb. | 4 | 6 |
| Senegæ Radix | | 3 | 6 |
| Sennæ Folia | | 6 | 6 |
| Serpentariæ Radix | | 7 | 6 |
| Simaroubæ Cortex | | 5 | 6 |
| Sodæ subboras | | 3 | 6 |
| — Sulphas | | 0 | 8 |
| — Carbonas | | 6 | 6 |
| — Subcarbonas | | 1 | 8 |
| — —— exsiccata | | 5 | 0 |
| Soda tartarizata | | 2 | 6 |
| Spongia usta | | 20 | 0 |
| Spiritus Ammoniæ | M. lb. | 4 | 0 |
| — —— aromaticus | | 4 | 6 |
| — —— fœtidus | | 5 | 0 |
| — —— succinatus | | 5 | 0 |
| — Cinnamomi | | 3 | 0 |
| — Lavandulæ | | 5 | 6 |
| — Myristicæ | | 3 | 6 |
| — Pimentæ | | 3 | 6 |
| — Rosmarini | | 4 | 0 |
| — Ætheris Aromaticus | | 7 | 0 |
| — —— Nitrici | | 4 | 8 |
| — —— Sulphurici | | 6 | 6 |
| — —— Compositus | | 7 | 0 |
| — Vini rectificatus | cong. | 26 | 0 |
| Syrupus Papaveris | lb. | 2 | 0 |
| Sulphur | | 0 | 8 |
| — Sublimatum | | 0 | 10 |
| — Lotum | | 1 | 2 |
| — Præcipitatum | | 1 | 2 |
| Tamarindi Pulpa opt. | | 2 | 0 |
| Terebinthina Vulgaris | | 0 | 10 |
| —— Cassadensis | | 7 | 6 |
| —— Chia | | 12 | 0 |
| Tinct. Ferri muriatis | | 5 | 6 |
| Tragacantha Gummi | | 7 | 0 |
| Valerianæ Radix | | 1 | 8 |
| Veratri Radix | | 2 | 6 |
| Unguentum Hydrargyri fortius | | 5 | 6 |
| —— —— Nitratis | | 2 | 8 |
| —— —— Nitrico-oxydi | | 3 | 0 |
| Uvæ Ursi Folia | | 3 | 6 |
| Zinci Oxydum | | 6 | 0 |
| — Sulphas purif. | | 3 | 0 |
| Zingiberis Radix opt. | | 3 | 6 |

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## NOTICES TO CORRESPONDENTS.

*The favours of* Dr. Bigsby, Messrs. Adams, Battley, Newbolt, Diamond, Clifton, Barrow, Medicus, *&c. and many anonymous communications, are received. Of the latter there are two, one on Dysentery, the other with the signature of* J. M. *which we should particularly insert had they been properly authenticated; but we must again repeat, that unless the names of the writers are also entrusted with the* Editors, *it is impossible to admit into the* Repository *cases and statements as facts in practice, that have no evidence of truth but assertion.*

*They who do not wish their names to appear to the cases they send, will find the* Editors *have, in the present Number, made an arrangement, by which they hope to elicit and record many valuable facts, that would otherwise be lost. But as every thing so published will be solely on their own responsibility, the names of the Communicators must be confidentially imparted.*

*Once more, in answer to our still numerous Correspondents regarding the Regulations for the Qualifications and Examination of* Apothecaries, *and on* Medical Education, *we have entered fully into both subjects. We are aware, however important such points may be, that they become irksome by repetition. However, that those to whom they are of immediate consequence, and those to whom they are but remotely so, may be equally satisfied, we have printed eight pages more of letter-press than our allotted number. Having, therefore, made every possible sacrifice, this we trust will be accepted as a proof of our anxious desire to meet the wishes of all parties; and yet without abridging the usual quantity of matter.*

*The grievance of which* J. W. *complains, we hope is merely local, and will certainly be best checked by local remedies.*

Chirurgicus *deprecates the trouble given to Medical Men, and the impertinence of many of the questions put to them by Life Assurance Offices, in regard to the health, habits, &c. of their patients; and the many unpleasant consequences to which they may at some future period be exposed, in cases where any legal disputes arise between the assurers and assured. We remember some years ago this subject was much agitated among the Faculty, from very similar feelings with those of* Chirurgicus; *but no remedy was suggested; and principally because it was considered that by complying with the application, they rendered a service where they wished most to oblige.*

THE
LONDON MEDICAL
REPOSITORY.

No. 26. FEBRUARY 1, 1816. Vol. V.

## PART I.

## ORIGINAL COMMUNICATIONS.

### I.

### *On the Effects of Arsenic as they appear in the Human Body after Death.* By J. J. Bigsby, M.D. of the York Hospital, Chelsea.

As the elaborate work on Poisons lately published by M. Orfila only details the effects of arsenic as they appear after death on the bodies of the inferior animals; it becomes desirable, in medicine and in jurisprudence, to continue the inquiry in relation to the human subject. I shall, therefore, present a tabular view of the principal cases of this species of poisoning, which have occurred in a rather laborious research; and from these data, and from detached facts, attempt a generalization, however imperfect, of the alterations of structure occasioned by arsenic.

M. Orfila was deterred, by a deficiency of materials, from entering minutely on this portion of his subject, and contents himself with the following observation:—"We may, nevertheless, conclude, upon the whole, that the mouth, stomach, and intestines are inflamed; that the stomach and duodenum sometimes present gangrenous spots, eschars, and perforations of all their coats; that the villous coat of the stomach appears as if destroyed, and reduced to the state of a reddish-brown dough; finally, that all the other viscera are more or less inflamed." It shall be our task to enlarge upon this paragraph, thereby to ascertain its degree of accuracy.

I have been the rather induced to incur a slight degree of blame, from an appearance of repetition, in giving the synoptical table, on account of the great rareness of dissections of persons destroyed by this substance; and from the sources of information being very widely scattered, and somewhat unusual in the generality of Medical Libraries.

The table is of so simple a construction as to require little explanation. I shall, therefore, only subjoin the authorities for the cases it contains, and observe, that where the compartments in the table are blank, the viscus or viscera, heading the column, are not mentioned at all by the author.

| Subject, &c. | External appearance. | Stomach. | Intestines. | Œsophagus, Heart, Lungs, Brain. | Liver, Spleen, Bladder, Kidneys, &c. |
|---|---|---|---|---|---|
| 1. Woman, 44 years; died in 9 hours. | No peculiarity. | Very much corrugated; considerable gangrenous inflammation near pylorus: at the bottom of this side was a large abrasion, with a little arsenic in it (internally). | | Right lobe of lung adhering to the pleura costalis. | Liver natural, spleen light red. |
| 2. Girl, 5 years; died in 12 hours. | | Very slightly inflamed externally, more so at the duodenal extremity of the larger curvature; villous coat in a state of very high inflammation, extending to no other part. | Colon very much corrugated, particularly about the arch. Duodenum slightly inflamed, and the surface of small intestines more than usually vascular. | Lungs unsound from previous disease. | |
| 3. Woman, 60 years; died in 12 hours. | Body not rigid, hind part black, abdomen not tumid. | Inner surface here and there eroded, particularly about pylorus; arsenic adhered to the abrasions among the membranous shreds. | Duodenum somewhat eroded (internally.) | Blood fluid in the heart, and florid; lungs black. | |
| 4. Man; died in a very short time. | | Largish spots of yellow, brown, or red, spreading themselves toward the pylorus; two angular abrasions of the villous coat, one in that part, the other near the cardia. | | | |
| 5. Child; died in 12 hours. | Uncorrupted, no tumour nor blemish, except a bluish livid tract on right side of the back down to the groin and thigh. | Contained much fluid, with arsenic and pieces of almonds. | Neither putrid nor fœtid. | | |
| 6. Woman. Dose half an ounce: Died in 13 hours. | | Contained greenish fluid with curdy substance in it (in all eleven ounces), villous coat of great curvature, near pylorus, partly destroyed to the size of a crown piece, of a dark red, with regularly defined edges, and arsenic adhering to different parts of its surface: rest natural. | Slight inflammation of peritoneal coat of small intestines. | | |

(1.) *Wolff*, Ephem. Nat. Cur. vol. v. obs. 29. p. 115.
(2.) ——, Med. Phys. Journ. vol. xxviii. p. 345.
(3.) *Morgagni*, Oper. Omn. Epist. Anat. lix. art. 3.

| *Subject, &c.* | *External appearance.* | *Stomach.* | *Intestines.* | *Œsophagus, Heart, Lungs, Brain.* | *Liver, Spleen, Bladder, Kidneys, &c.* |
|---|---|---|---|---|---|
| 7. Woman, 27 years; died in 15 hours. | Livid spots about the mouth, neck, clavicle, and right breast. Below the false ribs many small ecchymoses. | Contained several ounces of brown fluid: a fold of the cardia filled with much congealed blood, and some mucus, containing several half-dissolved fragments of arsenic; it showed every where a very gorged state and varicose dilatation of its vessels. | Were empty; but their blood vessels were very much loaded and distended. A few pieces of arsenic found here. | Vessels of the œsophagus were crowded and enlarged. The heart natural. | Liver natural. |
| 8. Woman, 18 years: died in 15 hours. | Muscles of face contracted. Excessive rigidity. Colour of legs, thighs, loins, and back more or less blue; face pale, lips blue. Temperature as usual 26 hours after death. | Distended with fluid. External surface presented very many red-blood vessels. Internal surface rough from swelling of mucous glands (now black). Itself more or less red, and spotted here and there with very black patches, especially toward pylorus. Epidermis or mucus membrane entirely destroyed. Cardiac orifice shewed an elevated line of demarkation (from loss of the epidermis). No deep erosion. Two days after the dissection, the red colour had nearly disappeared, and the black become deep red. A cyst was found in the liver (according to Dupuytren, an expansion of the mucus membrane) with traces of blood-vessels on it. It was 1½ inch long, ⅔ inch broad, 1-24 inch thick. Its cavity was divided into distinct cells, each containing a piece of arsenic. Dupuytren conceived that this was formed after two previous attempts at poisoning herself, from the constant pain of the epigastrium. | External surface much injected, and internal surface also in some places. | Ventricles of the heart contained very black blood. Aortic ventricles had a little more than the others. *Lungs* greatly gorged through two-thirds of their substance, and more so behind. Incisions displayed a compact tissue and hard; from whence, on slight pressure, blood issued without being accompanied by globules of air. Anterior surface red, its substance elastic and filled with air. | Liver and spleen gorged with blood. |

(4.) *Morgagni*, Oper. Omn. Epist. Anat. lix. art. 5.

(5.) *Etmuller*, Eph. Nat. Cur. tom. ii. obs. 126, p. 283.

(6.) *John Hunter*, Med. Chir. Trans. vol. ii. p. 63.

(7.) *Laborde*, Journ. de Med. tom. lxx. p. 89.

(8.) *Orfila*, Traité des Poisons, vol. i. p. 141.

| Subject, &c. | External appearance. | Stomach. | Intestines. | Œsophagus, Heart, Lungs, Brain. | Liver, Spleen, Bladder, Kidneys, &c. |
|---|---|---|---|---|---|
| 9. Man; died in 16 hours. | Back livid. | Arsenic in fragments, adhering very closely to the coats of the stomach. An erosion at the fundus, not penetrating through; with distension of surrounding vessels. Coats as thin as paper. | | | |
| 10 Child, 8 years; died in 21 hours. | | Internal surface in a gangrenous state near the pylorus. | No pain of abdomen, even on pressure, during the period of illness. | | |
| 11. Boy, 17 years; died in 21 hours. | No putridity, slight lividness on the inside of the thighs. | No inflammation on peritoneal coat, but inner membrane particularly at lesser curvatures, and near the pylorus very much inflamed, with many points of extravasated blood. In two or three spots of the size of a shilling, the membrane was abraded, and in one or two spots was a circular thickening (as if by coagulable lymph) with points of extravasated blood on it. Contained a yellowish-white fluid matter, floating, and a heavy white powder. No arsenic nor fæces in the alimentary canal. Cohesion of the alimentary canal natural. | Small intestines to within three inches of caput coli very much inflamed externally, being in some places of a florid red, but mostly purple with coagulable lymph, here and there. Duodenum and jejunum much thickened. The three inches of ilium above mentioned were natural, as also the rectum, colon, and cœcum; two former, smaller than usual. Mucous membrane of small intestines every where highly inflamed, with occasional extravasation. Mucous membrane, of large intestines less so, but still in some degree towards the rectum. | *Œsophagus* not inflamed. | |
| 12. Child; died in 24 hours. | Body swoln; bluish green; nails livid. | Mouth swoln, deprived of its villous coat, thin, almost transparent, checquered with livid spots. Contained a very fœtid, blackish-brown ley, and a dead worm. | Swollen. | *Throat* inflamed. *Heart* sound. *Lungs* ashen coloured, gangrenous. *Brain* natural. | Natural. |

(9.) *Bonetus*, Sepulchr. tom. ii. p. 90, obs. 5.

(10.) *London Med. Repos.* vol. ii. p. 270.

(11.) *Dr. Yellowly*, Med. Surg. Journ. vol. v. 289.

(12.) *Foderé*, Medecine Legale, part. vcclxix. p. 268.

| Subject, &c. | External appearance. | Stomach. | Intestines. | Œsophagus, Heart, Lungs, Brain. | Liver, Spleen, Bladder, Kidneys, &c. |
|---|---|---|---|---|---|
| 13. Child; 3 years; died in 33 hours. | | External surface slightly inflamed; on opening it, two or three ounces of coffee-coloured fluid were poured out; villous coat very highly inflamed, considerably more so than in the other child. | Internal surface of small intestines and also the rectum, highly inflamed. | *Brain* natural, except unusual turgescence on external surface; the *plexus choroides* remarkably vascular. | Internal surface of the bladder much whiter than usual. |
| 14. Woman: Time unknown. | | A considerable quantity of arsenic in lumps of different sizes, adhering to the coats; and near these places it was more inflamed than elsewhere. Violently inflamed externally and internally. | Violent inflammation internally and externally. | | |
| 15. Woman: Time unknown. | | The stomach contained a brownish-red fluid. Mucous membrane inflamed and destroyed; partly adhering to the next coat, and partly detached. The adhering parts were ash coloured, and seemed as if burnt, and were covered with a white sandy powder. Chemical tests could detect no arsenic. | Mucous membrane of intestines inflamed. | The viscera sound, except the œsophagus which was inflamed. | All sound. |
| 16. Man: Died in 8 days. Dose one drachm. | | Deprived of its villous coat, and filled with fluid and charry matter. Pylorus gangrenous. | Of a reddish black colour. | The internal membrane of the mouth destroyed. | |
| 17. Child. | Back livid. | Only contained a coloured water. Inner membrane ulcerated. | The whole colon and much of the other intestines gangrenous, of a black-red colour. | Chest full of yellow fluid. Lungs moderately inflated and blackish. Heart natural. | *Spleen* and *kidney* natural. Half the liver "grysea" and as if boiled. |
| 18. Man: Time unknown. | | Arsenic found in same state as when swallowed. Not the slightest erosion nor inflammation. | | | |

(13.) *Med. Phys. Journ.* vol. xxviii. p. 345.
(14.) *Whately*, Med. Observ. and Inquiries, vol. vi. p. 337.
(15.) *Jones.—Orfila*, vol. i. p. 171. (16.) *Lieutaud*, Hist. Anat. Med. p. xxxix. obs. 154.
(17.) *Wesefer*, Histor. Cicut. Aquat. p. 274, cap. xxi.
(18.) *Chaussier*, Dr. Duncan's Journal, vol. vii. p. 92.

| *Subject, &c.* | *External appearance.* | *Stomach.* | *Intestines.* | *Œsophagus, Heart, Lungs, Brain.* | *Liver, Spleen, Bladder, Kidneys, &c.* |
|---|---|---|---|---|---|
| 19. Man. unknown. | | No morbid appearance except a thickening of the membrane. | | | |
| 20. Not named. | | A drachm of arsenic in the stomach, but no disease. | | Natural. | |

On external examination, the body generally appears marked in different situations with long livid stripes or patches of various sizes; and in some cases with small ecchymoses. On several occasions it was black on the posterior part of the body; on others, it was universally of a blueish green colour, and puffed up.

On tracing the alimentary canal from above downwards, we find the mouth only once affected, in a case of remarkable severity and proportionately of very considerable duration.

The œsophagus, which in the lower animals Mr. Brodie always found uninjured, is also seldom inflamed in the human subject. The above table furnishes us with three instances; in one, the symptoms during life and the appearances after death were very mild; but in the other two, both were violent.

The nature of the contents of the stomach must in a great measure depend on accident. The mass has varied to almost every shade of colour and consistence:—it has been pellucid, yellow, brownish red, brownish black; it has been thickened, or watery, or partly resembling curds. Sometimes arsenic, in fragments, is found lying loosely among the mixed fluids and solids; sometimes a minute chemical investigation cannot detect the remotest trace of the deleterious substance.

The villous coat of the stomach is most commonly the seat of very intense inflammation; but, in three instances, none whatever was discernible; and the case furnished by Etmuller is quoted by Orfila as a fourth example of this fact; but it will be easily seen from the foregoing table that the original report, of which No. 5 is a concise transcript, never adverts to the presence or absence of inflammation in any part of the body; and that the attention is confined to putrefaction. No. 7 also is somewhat remarkable for the mildness of the morbid appearances, as well as for the tranquillity and ease observed through the period of the attack. Jaeger, in a German thesis on arsenic, in relating a dissection, says, "there was only observable a slight spotted redness about the cardia, a discoloration at the bottom of the stomach, and a very small brown spot, where the villous coat seemed superficially burnt." Ruysch,

(19.) *Marc.—Orfila*, vol. i. p. 155. (20.) *Sallin.—Orfila*, vol. i. p. 155.

many years ago, found that, if the patient were destroyed before the arsenic had exerted its full energy, together with the broad inflammatory base, bloody points of extravasation are scattered over the surface of the stomach*; but these do not frequently occur alone, and are enlarged into coagula of various dimensions.

The more common appearance is that of erosions or abrasions of the villous coat, which are often seated, on a diffuse surface of intense inflammation; but in the dissection detailed by John Hunter, the mucous coat was inflamed to a very small distance from the erosion. The erosions assume the form of angular or somewhat circular depressions, with regularly defined or ragged edges, in which, and on the surface, pieces of arsenic are very commonly discovered; and in one case actually agglutinated to the parts: this substance has also been seen adhering to the inflamed portion of the stomach, with an increase of the morbid effect in its vicinity.

The abrasions† are of various dimensions, and in extremely violent examples extend over the whole cavity, occasioning a deposition of a mixed char-coloured fluid: nor are these instances extremely rare‡.

The inflammatory base, bloody points, coagula and erosions are not often solitary, but occur in beautiful gradation in the same subject; the mildest being situated toward the centre of the organ, while the violence strengthens on approaching the orifices, and particularly the pylorus.

The inflammatory process is proportionate to the interval of time which had elapsed between death and the exhibition of the poison; and relatively, according to the empty or full state of the stomach at the time, and the medical treatment employed.

The muscular coat is very seldom adverted to; but nevertheless, at least in severe cases, it is included in the general derangements. Itself susceptible, it is closely connected to a membrane highly inflamed, and usually contracts violently during the period of the disease.

The peritoneal coat is not very frequently affected; and when it does occur, it is recognised by an increase in the size and the number of the small vessels of the part.

In milder cases, Dr. Baillie and Dr. Yellowly have found

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* *Ruysch. Thesaurus Anat.* viii. p. 21.

† *Navier sur des Contrepoisons*, tom. i. p. 17 et 169.

‡ Portal, in his "*Anatomie Medecale*," (vol. v. p. 117) gives an instance of abdominal hæmorrhagy having occurred from the use of arsenic; thus, "J'ai vu un exemple dans un homme qui avoit été empoissoné avec de l'arsenic; l'estomac et l'intestin duodenum etoient rouges et ouverts."

the stomach thickened in several parts, as if by congulable lymph: and in one case, indeed, a thickening of the coats was the only alteration of structure observable.

The cohesion of the stomach has twice been said to be natural, referring to the healthy part: it has been met with very much corrugated.

Arsenic produces similar effects on the intestines, but of a more lenient character, and less powerful in proportion to the distance from the stomach, with the exception of the rectum. The mucous membrane is, in common, strongly phlogosed; that of the duodenum in the most marked manner: it has been the seat of erosions; and Portal has observed it actually perforated with a ragged orifice. The inflammation continues down the jejunum and ilium, gradually declining in vigour; and usually disappears in the larger intestines, although they have been met with of a reddish black colour, from gangrene as the writers conceive.

Dr. Baillie was informed by persons of good authority, that in two cases, on examination after death, ulcers were found at the lower end of the rectum: it was highly inflamed in the case of the child, No. 13 of the tabular view.

The peritoneal coat of the intestines is not unfrequently much more vascular than natural; at other times, the inflammation has been confined to the small intestines, or to portions of them; and now and then it is altogether absent.

The intestines do not frequently contain arsenic.

The duodenum and jejunum have been mentioned as being very much thickened; and the colon strongly corrugated, particularly about the arch.

The liver is often spoken of as sound; but in a severe case it was gorged with blood; in another it was "*grysea et quasi elixa.*" The spleen is seldom examined:—it has either been said to be sound, or *filled* with blood.

The bladder of the child (No. 13) was much whiter than usual on its internal surface.

The brain has seldom engaged the attention: it has been reported natural, and in one history it is mentioned to be unusually turgid on its external surface, and the plexus choroides was remarkably vascular.

No morbid appearance has been discovered about the heart: its cavities are often filled with fluid blood.

The lungs have been black, and full of blood; they have been described to be ashen-coloured and gangrenous. The right lobe was found adhering to the pleura costalis.

What has hitherto been advanced, refers to the body soon after death. The German writers have gone further, and have formed opinions, which, for their supposed utility, respectable origin, and lateness of date, ought not to be passed over.

It has been alternately asserted, that arsenic produces a preternaturally speedy, or slow, putrefaction. In support of the former idea I know nothing; but in confirmation of the latter, Professor Pfaff has produced an instance where the body of a person poisoned by arsenic lay fourteen days in the grave without any sensible putridity. Metzger details another, where examination eighteen days after death discovered neither putrescence nor fœtor; and Etmuller adds a further case, noticed in the table, where the body was four days above ground, and four days buried in a wet season, without any signs of putrefaction.

Dr. Backmann, in the Memoirs of the Medical Society of Erlangen for 1813, from personal observation, "considers the following circumstances as important indications of poisoning by arsenic, viz. the slight progress of putrefaction, considering the time of burial and the weather; the mahogany-brown colour of the skin after the white mould had been wiped off; the elastic and mummy-like hardness of the skin, which cuts like the hard rind of old cheese; the conversion of panniculus adiposus and abdominal muscles into a mass like bacon or cheese: and also the peculiar smell of the cavities when opened, which resemble offensive cheese, instead of sulphuretted hydrogen gas, which is usually generated during putrefaction. This is a remark of Wessfer, a Prussian physician (*Hufeland's Journal*, vol. xvi. No. 1, p. 180.)

Moreover, the experiments and observations of Prof. Kelch, of Königsberg, which were expressly made to ascertain the powers of arsenic to resist putrefaction, and which were published in Hufeland's Journal (vol. 19 and 22), seem to put the antiseptic power of arsenic out of doubt: and it deserves to be mentioned, that Professor Kelch, in examining the intestines of a person poisoned by arsenic, remarked the same disagreeable smell; but not at all resembling that of putrefying intestines.

No experiments have been made in Britain on this subject.

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## II.

### *Some Remarks on the Mode of detecting Stone in the Bladder; with the Description of an Improved Sound for that purpose.* By James Barlow, Surgeon, Blackburn, Lancashire.

Whoever attentively considers the delicate and complex structure of the urinary organs, and the functions which they are destined to perform, will readily admit that their consequent exposure to disease and pain demands from the surgeon

the most prompt and attentive consideration to impart relief. On these grounds, it is presumed, the experienced reader will pardon me for thus intruding on the public, in attempting to obviate certain difficulties occurring in the ordinary mode of sounding the bladder, which I have occasionally experienced in practice, and which I presume others must have likewise shared with me. On these considerations I have been led to make the following observations on the construction and superiority of the sound, as represented in the annexed plate; which I have of late been in the frequent habit of using; and can with confidence assert, that it possesses obvious advantages, in practice, over the common sound; being evidently moved in the canal of the urethra and cavity of the bladder with greater facility to the surgeon, and safety to the patient, than those constructed in the ordinary way. Cases frequently occur, where the prostate gland is morbidly enlarged, and where inflammation has spread over the internal membrane of the bladder, and along the posterior portion of the urethra*, producing spasm and irritation, and, when complicated with stone in the bladder, exhibits an additional aggravated cause of the frequent desire to expel the urine, while the reiterated excitability of the functions of the urinary organs, whether dependent on voluntary or involuntary action, manifests a degree of sympathizing agency over these parts, which presents a frequent and obvious barrier to the introduction of either the sound or catheter.

To accomplish the introduction of the sound, and search the cavity of the bladder with becoming dexterity, the surgeon should be furnished with a variety of instruments of different degrees of curvature, length, and diameter, proportioned to the age and bulk of the patient. As no two cases, however, are in every respect exactly similar, and almost every writer on surgery has described the anatomy of the parts subservient to lithotomy; it appears superfluous in this place to enter minutely on the subject, presuming that the reader is fully acquainted therewith.

It will be granted, that the management of the catheter requires nearly the same manœuvre to conduct it into the bladder as the sound: let me then entreat the attention of the young surgeon to the following paragraph, so well expressed by an author of distinguished celebrity, when closing his directions on the mode of introducing this instrument into the bladder.

"The catheter," says he, "in the hands of a surgeon, like the pencil in the hand of a painter, requires frequent use,

* The membrane of the urethra sometimes becomes inflamed and dry, which also prevents the free motion of the sound.

and much practice, to be managed with facility and success. Rules may be laid down for the forming a rough outline; but those more delicate movements which, in many instances, are necessary to ensure success, can no more be described, than a painter can decribe those finer touches of his pencil, which are necessary in the perfecting of some finished performance."

When a common-formed sound has been introduced into the bladder for the purpose of exploring the different parts of that viscus to find a stone, I have frequently perceived the instrument so firmly embraced by the urethra, that it was scarcely moveable without the whole of that canal and the body of the penis co-operating with the motion exercised by the hand in attempting to complete this stage of the operation. Hence will appear the difficulty and obscurity of such a blind research, and the uncertainty of identifying the tremors communicated from the stone, along the sound, by the stroke of the instrument. These perverse circumstances first suggested to me the idea of the necessity of adopting a sound differently constructed from those in general use.

I am also disposed to believe that the failure attendant on detecting a stone, may not unfrequently be attributed to an irritable and spasmodic affection of the muscles* of the perineum and bladder (independent of organic disease), opposing the movement of the instrument; for when its point is conducted to the membranous part of the urethra, the ejaculator seminis and the prostate gland, it excites the contiguous muscles of the lower part of the pelvis and bladder into action, which impedes the complete introduction of the instrument; in this uncertain and embarrassed posture of affairs, it is manifest that every judicious movement of the sound must be fruitlessly employed, unless the stone be of considerable size, or seated near the neck of the bladder†.

The pain and spasm so frequently excited on the living body, by the introduction of any instrument into the bladder, when tortured with calculus, must have been noticed by most practitioners who are versed in this branch of surgery; and it is a fact worthy of observation, and which the young surgeon should invariably bear in mind, that a similar attempt to pass

* Is it not an undue degree of action of the two muscles surrounding this portion of the urethra, as described by Mr. Wilson, which chiefly tends to impede the introduction of an instrument into the bladder?—See *Medico-Chirurgical Transactions*, vol. i.

† In the course of an extensive practice, I have many times been able to detect the stone in the bladder, when other surgeons have repeatedly and fruitlessly employed all their efforts.

either the sound or catheter on the dead subject is evidently an operation pregnant with comparatively minor difficulties, seeing that the muscles subservient to these parts have lost their vital energy.

Before dismissing this subject, I wish to mention that I have also been in the habit of occasionally sounding the urethra to ascertain the place and extent of stricture with this instrument, and sometimes using one made nearly straight; either of which excites less irritation, and is likewise received by the canal of the urethra with greater facility than the bougie. Having thus slightly marked out a few leading impediments in the mode of sounding the bladder (which are scarcely noticed by surgical writers when treating on the stone), without entering into a laboured detail of every step and stage relative to the subject, I am induced to hope that the practical lithotomist will acquiesce with me in having suggested an instrument, the construction of which, when used with skill and adroitness, will surmount most of the incidental obstacles connected with the operation in question.

*Explanation of the Plate.*

*a.* The stem of the sound from the anterior part of the bulb to the handle, equally reduced to about one half the ordinary thickness, or one seventh of an inch in diameter; which diminished form renders it less liable to be acted upon by the urethra.

*b.* The apex or bulb of the sound, which should be of the usual size; or about one fourth of an inch.

*c.* The handle, which should be made quite smooth. The entire sound should be about twelve inches long; and its greatest curvature two inches and a half.

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## III.

*A Case of Delirium Tremens.* By A. H. Clifton, Islington, Member of the Royal College of Surgeons.

Nov. 27, 1815, Mrs. B——, aged 44 years, was attacked with violent pain in the abdomen, attended with copious vomiting of bilious matter; she passed a sleepless night, and in the morning following, when I first saw her, I found her extremely irritable from the continuance of pain and distressing retchings.

I ordered a dose of sulphate of magnesia with infusion of senna to be given immediately, and to be repeated every two hours until it operated.

In the evening the pain and vomiting were entirely removed by the operation of the cathartic, which had acted several times, and had brought away a considerable quantity of dark-coloured


MR. JAMES BARLOW'S SOUND.

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and very offensive fœcal matter. Small doses of sulphate of magnesia were continued every six hours.

29th.—I found my patient much better in every respect, the motions assuming a more healthy appearance: but she had passed another sleepless night, although free from pain. A draught containing 40 drops of the tincture of henbane was prescribed to be taken at bed-time.

30th.—I was called early this morning to visit my patient, who had been very unmanageable all night; declaring that strangers were in the room, together with cats, rats, &c. She was in a state of extreme agitation, from an idea that police officers had been searching her premises for stolen goods; that they had also left a company of soldiers to prevent her escape, together with other fancies equally ridiculous. The pulse was 130. She immediately took, and repeated every four hours, a draught containing Tincturæ Opii. ♏ xl.

Dec. 1st.—The pulse was somewhat less frequent, but the delirium unabated; the night was passed without sleep, and in the same violent way as the preceding. Ordered five drops of laudanum to be added to each draught.

Afternoon.—Having taken about 250 drops of laudanum in thirty hours, she fell into a sound sleep, which lasted for four hours, and awoke much less agitated and more correct in her ideas. From this time she rapidly improved, without suffering from head-ache, or costiveness of the bowels. The draught was repeated only occasionally, though always at bed-time, for about a week, when she appeared perfectly recovered. It is right to observe, that upon an attentive inquiry, I could not discover that she was at all intemperate in her habits*.

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## IV.

### *Observations on the Inefficacy of the Humulus Lupulus, and on the Effects of Sulphuric Acid on Infants when at the Breast.* —By W. B. Diamond, Rushlake-Warbleton, Sussex, Member of the Roy. Coll. of Surgeons.

I perfectly agree with Dr. J. J. Bigsby, that it would afford far greater pleasure to substantiate the efficacy of a new

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* Although the above case presents no novelty, yet we are greatly indebted to Mr. Clifton, and to other gentlemen who have published the results of their experience in the *Repository*, on the treatment of this peculiar affection, which, added to what was before known, has made a very valuable acquisition to therapeutics. Nor should it be forgotten, that great merit is due to Dr. Sutton, for his discrimination and elucidation of a disease heretofore confounded with one very different in its nature.—Editors.

and useful medicine, than to enter into the detail of negatives; but I must avow that I have repeatedly given the *humulus lupulus* in the form of tincture, which was accurately prepared, according to the London Pharmacopœia, by myself; and without even observing, in a single case, any remarkable effect—or, I may say, *any effect*. I have given the extract also, prepared at Corbyn's, in considerably larger doses than is directed, with a similar result. From the expence of preparing the tincture, owing to the great quantity of spirit absorbed by the hop, and, as far as my experience goes, from the inefficacy of the medicine, there is little doubt but that its use will, if it possess no advantage over other and less expensive bitters, be soon entirely abandoned.

It affords me satisfaction in being able to answer Dr. Bartley's query (vide *Repository*, vol. iv. p. 289), "Whether, on any occasion, it has been observed that the administration of sulphuric acid to a nurse has been attended with pernicious consequences to the infant?"

Two years since I was applied to by Mrs. P. of Lamberhurst, who had a profuse discharge of the catamenia, attended with great debility, consequent on parturition about a month before. I gave her the infusum rosæ without any further addition of the sulphuric acid than is ordered in the Pharmacopœia. A wine-glassful was drank twice or thrice a day; and when about eight ounces were taken, the infant at the breast was seized with severe griping pains in the bowels; it cried violently, and had slight convulsive spasms. The mother suspected the indisposition of her child to be owing to the "*sour mixture*," which I had given her; it was discontinued; and the chalk mixture with tinctura opii was administered The infant was very soon relieved.

Another case, exactly similar, occurred; and the same treatment produced on the child the same result. I have never since given the sulphuric acid to nurses suckling infants.

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## V.

*A Case of Ovarian Dropsy.* By William Gaitskell, Rotherithe, Member of the Royal College of Surgeons and Society of Apothecaries, London.

Anne Stone, aged 25, thin, and delicate in appearance, was attacked about eight years ago with a swelling just above the left groin; it was deep seated, and painful. This increased slowly for about four years, when the abdomen became so tumified, as to induce a belief that she was pregnant. During

this time she experienced a good deal of pain, particularly in walking, so as to compel her frequently to sit down.

Her mistress, from suspicion of pregnancy or dropsy, recommended her to take medical advice; and for this purpose she was admitted into Guy's Hospital. She remained three months in this charitable establishment under the care of Dr. Currey, and took a variety of remedies, but without experiencing relief. At the age of 19 menstruation commenced, and continued with great regularity. In three years it suddenly stopped, and has not since re-appeared.

The abdominal swelling continued to increase till the present period, being about eight years from its commencement; and had acquired the enormous circumference of six feet. Notwithstanding this, her health was good; she had an appetite for food, and power to digest it; her respiration was free, and without cough; urine plentiful, and of a natural colour; the bowels were regular, but rather inclined to costiveness. In fact, all the viscera of the thorax and abdomen seemed to perform their functions; and the only inconvenience she seemed to sustain was her bulk.

This woman was a patient of my much-esteemed friend, Mr. Shuter, who generously afforded her gratuitous attendance. The operation of paracentesis being decided on, he kindly invited me to attend him with two other medical gentlemen, Mr. Brickenden and Mr. Leedham.

The perforation was made by Mr. Shuter about two inches below the umbilicus. Fifteen gallons of fluid, of a brownish yellow colour, and of the consistence of thick barley-water, were drawn off. Each pound measure of this fluid weighed 19 ounces, *avoirdupois*. She bore the operation exceedingly well.

This may be considered a well defined case of ovarian dropsy, no viscus of the abdominal cavity being disturbed. It evinces the extraordinary power the animal body possesses of accommodating itself to great changes, if slowly effected. In this instance the displacement of the abdominal viscera must have been considerable, to admit a sac to rise out of the pelvis capable of holding 15 gallons of fluid, without sensibly affecting any natural function. Had any abdominal viscus undergone organic change by chronic inflammation, so as to produce ascites, the constitution would have been dangerously disturbed: besides, anasarca of the lower extremities would have taken place, with diminution of renal secretion, which did not, to any perceptible degree, in this instance occur.

The ovarian sac is rapidly filling again, and will, no doubt, very shortly require a repetition of the operation.

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## VI.

### *Observations on the Deleterious Effects of London Porter.*

By the same.

To a late report (vide *Repository*, vol. iv. p. 85) on the deleterious influence of London Porter, by producing apoplexy, I am sorry to add, ten more fatal cases have come to my knowledge, and most of them in the labouring classes. Two happened in Bermondsey parish; they were hearty-looking men, one 50, the other 60 years of age, and great porter drinkers. They both dropped dead in the streets. Two others happened in Lambeth parish. Four more took place in Newgate-street; and two more in the parish of Rotherhithe. One of these was a fine young man of 28, the other a coal meter about 56.

About the time of finishing these remarks, I was favoured with the company, for a few days, of Dr. Wilkinson of Bath, a celebrated chemical philosopher. He approved of my former observations on the effects of porter, and begged me to subjoin the following letter, illustrative of a property produced in this favourite beverage by the engine which conveys it from the cellar to the bar.

"Dear Sir,—Having perused your valuable observations on the frequent production of apoplexy from porter, I beg leave to notice that in Bath, where I reside, and where paralytic patients generally resort, we have observed a considerable increase, since the introduction into public houses of the machines for pumping up the porter and ale to the bar. It is a common pump, communicating with the malt liquor in the cellar, by a lead pipe, generally more than 40 feet long. As it is well known, from the common construction of the pump, that all the pipe below the fixed valve must be always filled with the malt infusion; and as this, particularly in what is called stale beer, frequently is undergoing the acetous fermentation, the lead is acted upon, and a solution of this insidious metallic poison is then drank. I have had frequent opportunities of examining these lead pipes; and I have also many specimens by me, that have all the appearance of the carbonate of lead. As I have lately been induced to pay some attention to this subject, I have frequently remarked many persons, accustomed to take malt liquor early in the morning, complaining of those dyspeptic affections we find generally resulting from lead. In order to guard persons against drinking porter where these machines are employed, I have frequently shewn to them the lead precipitated by an hydrosulphuret. I think it is a

duty incumbent on all medical practitioners to use their influence in their respective spheres of practice to prevent persons from taking malt liquor where these deleterious machines are employed.

"I am, dear Sir, yours sincerely, C. WILKINSON."

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## AUTHENTICATED CASES, OBSERVATIONS, AND DISSECTIONS.

### IV.—*A Fungus Tumour cured by an Alterative Plan of Treatment.*

ANN ROBINSON, of Sunderland, ætat. 16, of stout make, fair complexion, and delicate skin; regular in catamenia; and having her bowels always in a proper state; about the middle of January last, when walking in Piccadilly, received a very severe blow upon the angle of the left jaw bone. It proceeded from a large and very hard snow-ball which knocked her down, and stunned her so much that she required assistance to return to her residence. The ball was so hard, that at first she supposed it to have been a large stone. The following day she observed a considerable swelling upon the part, which continued to increase gradually; her teeth became loose, and the lips swelled: the upper lip assumed a dark and fungous aspect, which frequently bled spontaneously from the slightest touch; while, at the same time, upon applying the finger to the tumour, it felt irregular, and at some points elastic; soon afterwards the mouth became ulcerated and painful to the touch, and the breath was even to herself offensive. Not long after this the discharge from the inside of the cheek and upper-lip became ichorous. The fungous appearance of the upper-lip was most unsightly. Though the tumour was large, it was not hard; but the skin was so much distended as to give it the appearance of firmness. The pain of the face was constant, and particularly when she ate food. For two months she had been in this state, when she was put under my personal treatment.

Upon the 2d of March I first saw her; and being satisfied that no method of cure which has hitherto been adopted could be relied upon, though recommended by the best authority, except excision; and having very recently witnessed the fatal severity of the same disease, similarly situated, in the case of Mr. Brewster, of Sunderland, which was known to several of my professional brethren there, and at Newcastle, I resolved, when she had been for some time in the Infirmary, to push the al-

terative plan in the case of Ann Robinson; and accordingly prescribed the following:

℞. Pulv. G. Ammoniaci
Sub-muriatis Hydrargyri,
Pulv. Antimonialis, āā gr. xv.
Simul tere et adde Mucilag. G. Acaciæ. q. s. ut ft. pil. xv.
—Sumat unam bis in die, e poculo infusi Humuli Lupuli.

She was ordered light nourishing diet.

Upon the 7th of March she caught cold, which increased the swelling. Some requisite directions were given for her complaint, and at the same time the pills were persisted in, and oleum camphoratum directed to be applied pretty frequently during the day. A week after this time (15th) the symptoms were not better, although her appetite improved; the swelling was still large, and the lip much thickened. The fungous appearance, and bleeding, as hitherto. The pulse was not so quick, and more soft. The bowels were regular. The pills were continued.

March 22.—The tumour is lessened in size, and the lips not so much swelled. The bleeding is now less frequent, and she is every way improved. Continue the medicines.

April 1.—She is now quite restored; and nothing remains but a slight thickness of the affected cheek. I directed her to continue the pills.

April 4.—She continues in good health, and has no appearance of swelling or disease. She wishes to get into service again; which has my approbation.

Sept. 21.—She has been lately married, and left this place a short time since with her husband, in excellent health and spirits.

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### V.—*A Case of Abscess in each Section of the Tongue.*

Many anatomists have doubted the existence of a septum dividing the tongue; but the following case, I think, irrefragably proves that it does really exist:

A. B. a healthy young man, complained of a swelling and pain in the *right* side of the tongue. I examined it, but felt by no means certain what was the nature of the swelling. In a few days, there was an evident fluctuation; and upon plunging the lancet into the tumour, a discharge of well-formed pus flowed. I observed that the tumefaction did not extend beyond the central line of the tongue; the other side being of the natural size and appearance. The abscess healed, and my patient was discharged well.

However, in a few days after, he called again, and complained of a similar swelling and pain on the *left* side of the tongue. On examination, it presented the same appearances

as the other side on his first application. It preserved precisely the same course, was confined to that side only, suppurated, was opened, discharged about the same quantity of pus, and as soon healed.

### VI.—*Lusus Naturæ.*

A LAMB that was killed at five months old, presented some appearances on examination, which made its sex equivocal.

It had the horns, and rather the countenance, peculiar to a ram. There was no penis, but only some muscular fibres, where that organ generally is. It had two testicles, smaller than usual, not in a scrotum, but in a fatty substance, having the exact form of the udder of an ewe. The external labia were perfect, and the vagina was of the usual length; from which the urine was discharged, not in a stream but dribbling. The vagina terminated in a flattened cavity, about the size of a pullet's egg, shaped like a horn at the fundus; at the back of which the ureters entered. No ovaria, vesiculæ seminales, or bladder, were discovered.

## *PART II.*

## ANALYTICAL REVIEW.

### I.

*Elements of Pathology and Therapeutics; being the Outlines of a Work, intended to ascertain the Nature, Causes, and most efficacious modes of Prevention and Cure, of the greater number of the Diseases incidental to the Human Frame; illustrated by numerous Cases and Dissections.*—By CALEB HILLIER PARRY, M.D. F.R.S. &c. &c. Vol. i. 8vo. pp. 463. London, 1815. Underwood.

DR. PARRY informs us, in his preface, that the volume under our consideration is only an epitome of his pathological and practical principles; and that he has another and much larger work in contemplation, which will contain the proofs of those principles.

We have great respect for the talents and intentions of this excellent physician; but we sincerely wish, that he could have given us the results of his long and extensive experience in a single work, containing both the principles and proofs of his practice as illustrative of each other. The plan which our au-

thor has adopted, forces him to use innumerable repetitions: and, after all, we are frequently left unsatisfied, for the want of substantial and particular evidence. Dr. Parry, no doubt, has the most distinct conceptions relative to many of the difficult subjects on which he has animadverted; but he certainly has not always conveyed those conceptions distinctly to others; because he has often reserved the particulars, out of which he himself formed his special, and even his general opinions.

This work, nevertheless, contains many important truths and expositions; many decided proofs of quick perceptive, and of deep reflective powers; although it has other defects than those alluded to. But what human production can be found perfect? What solitary individual is adequate to explain the phenomena, and nature, of the most obscure diseases? It is lamentably true, that, in the medical world, the most splendid works of genius or industry have generally served to prove how much aspiring minds dare attempt; and how little, in comparison, they can actually accomplish. Yet it is always most desirable, that the observations of experienced and intelligent practitioners should be publicly recorded; as they are not only highly useful to the present times, but will contribute to form the bases of more perfect and inducing systems in future ages.

It is not easy to analyze this valuable book, on account of the number and magnitude of its constituent parts. But we shall endeavour, by extracts and remarks, to give our readers a tolerably correct notion of the nature of the most important parts of its contents.

Dr. Parry commences with several definitions concerning the nature of human and of medical science. These definitions give the work a metaphysical aspect; but they certainly contribute towards its perspicuity. We shall extract those which strictly relate to the subject, and also some remarks which follow them.

" (x.)—The science of Medicine, in its most comprehensive sense, is a knowledge of the qualities and order of such phænomena of animal bodies, as constitute health and disease, together with the conditions necessary to the preservation of the former, and the removal of the latter.

" (xi.)—The science of animal Anatomy is the knowledge of such phænomena, as constitute the structure of the animal body.

" (xii.)—The science of animal Physiology is a knowledge of the qualities and order of the phænomena of the body in a state of health.

" (xiii.)—The science of Pathology is a similar knowledge of the animal body, in the state of disease or death.

" (xiv.)—The science of Therapeutics is a knowledge of the quality and order of those phœnomena of the animal body, which follow the application of extraneous causes, and precede the restoration of health.

"(xv.)—Of all the deviations from health incidental to the animal frame, the most obvious is a disordered state of the whole, or some part, of the Sanguiferous System.

"(xvi.)—As the two most observable circumstances with regard to the blood circulating in that system are its quantity and velocity, so the more palpable deviations from the healthy state of the Sanguiferous System consist in some excess or defect of one or both of these two circumstances, the quantity or velocity of the blood.

"(xix.)—It may also be, for the present, assumed, that, the general velocity of the blood remaining the same, that which circulates through particular parts may be retarded or accelerated beyond the rate of motion in the rest of the system.

"(xx.)—So also with regard to quantity; the blood may be, first, either in excess or defect in the whole system; or secondly, it may be in excess or defect in one part of the system, while it is in due quantity in the rest; or thirdly, it may be in defect in one part, while it is in excess in the rest; or lastly, it may be in excess in one part of the system, while it is defective in another part, and even in the whole of the rest of the system."—pp. 3—6.

Dr. Parry appears to conceive, that the habits of civilized men tend to produce and maintain a degree of plethora in the human frame; and that most of their diseases are inseparably connected with an excess in the quantity or velocity of the blood. This seems to be his grand pathological principle; and almost the whole drift of his observations is to illustrate or establish it; for he has only devoted about six pages to the consideration of defective determinations of blood. No harm can well result from legitimate generalizations. But we fear, that Dr. Parry has sometimes generalised from very insufficient data, and even made facts bend to the force of his speculative opinions. Still, however, we think that his labours are deserving of high commendation; and that they will certainly tend, with other similar and known ones, to direct the attention of the medical public more decidedly to the different states of the circulation; and thus turn the immortal discovery of Harvey to great practical purposes. After a few remarks on excessive momentum or determinations of blood, our author proceeds to the consideration of the structure and functions of the sanguiferous system. He notices it as a curious fact, that the substance called fibrin, which forms a part of the muscles, has no existence, according to Berzelius, in the coats of the arteries; which he thinks affords a strong presumption that they are void of the functions of muscles. He agrees with Haller in concluding, that, in a state of health, the force of the heart is quite sufficient to carry on the circulation; and seems to consider that any alternate contractile power, like that of the muscular fibres in the arterial system, would as

much tend to impede, as to promote, the circulation of the blood.

The elasticity of the arteries, we apprehend, is partly for the accommodation of the columns of blood propelled from the heart; but as they have also a property of contracting, independent of the heart, as we see in many local determinations not amounting to disease, we cannot but believe that they directly assist in carrying on the circulation. Dr. Parry, however, thinks otherwise; yet the weight of opinion is clearly on our side, and we are not disposed to argue the point further with him. But as indirectly connected with this subject, we shall merely observe, in passing, that we think one of the great defects of Dr. Parry's work is, that he has not sufficiently attended to the powers which the arteries have in inducing disease by their own independent action. We cordially agree with him in his remarks upon the pulse; and recommend them to the serious perusal of those practitioners who are in the daily habit of relying on that fallacious criterion.

" (XLV.)---The quantity of blood in the whole system remaining the same, it is obvious, that if, by any cause, that naturally existing in one part is diminished, there must be a proportionable increase in some other part, or in the whole of the rest of the system."---p. 14.

" (CXXXII.)---Could we, from the circumstances of the heart's action, always with tolerable certainty decide as to the just quantity of blood existing in the whole or certain parts of the frame, great benefits would arise to the human race. But of the insufficiency of the means hitherto generally employed for that purpose, the experience of every candid practitioner affords sufficient proof.

" (CXXXIII.)---The criterion, on which we are in the habit of relying for information as to this point, is the pulse of an artery; and it has been customary to seek for this instruction from the radial artery only.

" (CXXXIV.)---Now if the principles, which I have hinted at above (XLV.) are well founded, it is obvious that nothing can be more deceptive than this criterion. Of the truth of these principles, it may be expected that I should give some proofs and illustrations; and this I shall briefly do in this place.

" (CXXXV.)---First, In many diseases, the pulse of certain arteries, and, among the rest, of the radial, shall be weak and small, the part being at the same time preternaturally cold; while the pulse of all other tangible arteries shall be excessively full and strong.

" Secondly, I have known an instance in which no pulse existed in either radial artery, as long as the patient rested on a deep inspiration; and another in which the pulse in those arteries was lost during seventeen days; while in both these cases the pulse in all the arteries derived from other trunks was of its natural strength.

" Thirdly, It is not very uncommon to observe the pulse lost in all the arteries of one arm, while it may be found as usual in those of every other part.

" Fourthly, In a state of moderate and perhaps due general fulness, the face and head are, on various occasions, flushed and hot, and the pulse of the carotids is extremely strong, full, and bounding, while all the extremities are cold and pale, and the pulsation of their arteries preternaturally small and weak. This occurs in certain diseases of a highly dangerous kind, as Erysipelas of the face; in which the skin of the whole head shall be extremely hot and full of blood, and the pulse of the carotids enormously full and strong, while the extremities are of a deathlike coldness, and the pulse in the radial arteries very weak and small.

" Fifthly, Again, in various diseases, as gout and other local inflammations unaccompanied with fever, while the arteries of the part, and those immediately leading to it, shall be full in an unusual degree, no change from the natural state shall be perceivable in the radial arteries. If also the gout, without fever, affects one hand only, the pulse in that radial will be excessively strong, while in the other it is in its usual state.

" (CXXXVI.)—If these things are so, surely we ought to wonder at the confidence with which physicians look to the condition of the pulse in the radial arteries as the general evidence of the state of disease, and the chief rule of the administration of remedies."—pp. 48—51.

The second section, in which inflammation and its consequences are discussed, contains some judicious and useful observations. The author considers, that, in the first stages, an excessive momentum of blood exists in the inflamed part; and thus ably inquires how far this excessive momentum may be regarded as a cause:

" And here, First, the pain of inflammation is often of a throbbing kind, evidently aggravated by each systole of the heart, with which each throb is synchronous.

" Secondly, the fulness of vessels, swelling, redness, heat, and pain, that is, the chief circumstances constituting inflammation, are increased by the local and general causes, which invite or propel more blood to the part. Thus the symptoms of gout, when superficial, or of erysipelas, are increased by the local application of heat, whether from clothing, fire, hot water, or the rays of the sun, and by the depending posture. These and other inflammatory affections are also aggravated, and, after having been relieved, are sometimes renewed, by whatever increases the action of the heart, and therefore the momentum of the blood; as, mental emotions; muscular exertions; heat of fires, baths, warm clothing, and crowded rooms; food; spirituous liquors; hot drinks; late hours, &c.: also by compressing any collateral branch of an artery; in consequence of which more blood is determined to those branches which supply the inflamed part. On all these occasions, when the pain is of the throbbing kind above mentioned, the throbbing is evidently augmented by the cause of aggravation, whatever it may have been; which, therefore, must act by increasing the impulse of blood from the heart.

"Thirdly, *è converso*, the pain and other circumstances of inflammation are abated by the local and general causes which diminish the momentum of blood in the inflamed part.

"Thus, they are relieved or cured by the topical abstraction of heat or of blood. The same effect also arises from mechanical compression, the power of which, accident has occasionally shewn, and contracted views have directed only to ascertain conditions of the inflammatory state. They are also mitigated or cured by whatever diminishes the action of the heart; as, rest, especially in the horizontal posture; mental calmness; early hours; the abstraction of heat by the external application of cold air, cold water, ice, &c. or in form of drink; by certain medicines called sedative; by spontaneous or artificial evacuations, as of feces, and more especially of blood; and by every thing which produces a tendency to syncope. Lastly, they may be mitigated or cured by whatever intercepts or diminishes the flow of blood in the particular arteries leading to the affected part. This may be effected by various spontaneous changes of determination, constituting the conversions before stated. They may also be relieved by temporary mechanical compression of the arteries supplying the part, as I have long ago stated in whitloe, gout*, &c. and, according to Mr. Kellie, may be cured by that process continued for a sufficient length of time by the tourniquet.

"(CCVI.)---If, then, in every palpable case of inflammation there is excessive momentum of blood; if we increase the inflammation precisely in proportion as we increase the momentum, and diminish the inflammation precisely as we diminish the momentum; we have, I think, just right to consider the excessive momentum as an indispensable cause of what we see of inflammation, whatever may have been the more remote causes, or whatever other invisible intermediate circumstances in the constitution or the part there may be, antecedent to the excessive momentum which we perceive.

"(CCVII.)---Neither will this conclusion be invalidated, were it even proved, according to the opinion of Dr. Wilson, that the velocity of the blood in the vessels of an inflamed part is diminished; unless it be also proved, that the velocity is diminished in a greater proportion than the quantity is increased.

"(CCVIII.)---I have been the more minute in my attempts to establish the quality and order of phænomena on this important subject, because the principle will serve to illustrate various other diseases, which have hitherto been considered as very different in their natures, and therefore as leading to very different practices.

"(CCIX.)---It having been thus proved, I think satisfactorily, that excessive momentum of blood exists, and is an invariable cause in certain distinct cases of that series of phænomena, to which we give the abstract name Inflammation; we have a right, conformably to the laws of sound philosophy, to conclude that it exists, and is a cause in all.

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"* Memoirs of the Medical Society of London, vol. iii. p. 77.

" (ccx.)—From the above circumstances it seems also probable, that the immediate cause of local predisposition is a proneness to dilatation in the vessels of the part liable to such maladies, by whatever process that dilatation may be effected."—pp. 81—85.

Having explained many of the consequences and conditions of inflammation, this ingenious writer next shews the relation of the hydropic with the inflammatory state: and though many of his opinions on this head have in a great measure been anticipated by Dr. Blackall, yet they are so truly practical, that we shall not hesitate to quote them.

" (cccxxx.)—In describing the effects of inflammation, I have already mentioned that one of its simplest and most common terminations is the extravasation of serum, or some of its constituents. Some important circumstances relative to that extravasation were however then omitted, having been purposely reserved to this place.

" (cccxxxi.)—We have seen above (cclii.), that the swelling, which often accompanies the cessation of gouty paroxysms, is a true Dropsy of the anasarcous kind; following, in free spaces, the direction of gravitation.

" (cccxxxii.)—Where, however, it is considerably extensive, it seems to arise against gravitation, relatively to the inflamed part.

" (cccxxxiii.)—We might, *à priori*, conceive this progress to be owing to the strength of expulsory power in the exhalents, overcoming, in a column confined all around, the force of gravity. Perhaps, in some instances, this may actually be the case.

" (cccxxxiv.)—Since, however, we find that, in gout in the foot, this œdema often continues to extend itself in proportion as the inflammation in the foot subsides, nay sometimes exists in the greatest degree, and to the greatest extent, long after all symptoms of local inflammation are gone; we cannot help attributing its occurrence in the latter case to such a state of momentum of blood still existing in the vessels leading to the part originally inflamed, as produces preternatural evacuation by exhalation.

" (cccxxxv.)—This being admitted, we may reasonably suppose that the anasarca or œdema, stated to have risen to a considerable distance above the local inflammation, originated in a similar condition in the neighbouring arteries and exhalents; both of which appear, from all the phænomena in such cases, to be preternaturally distended with blood.

" (cccxxxvi.)—The existence of such a condition in parts supplied from the same arterial rami as those which go to the inflamed spot, is indeed proved by this fact; that if, in cases of extensive œdema of the leg, following gout in the foot, and chiefly appearing after the leg has been long in a depending posture, we apply a tight bandage from the foot to above the ankle, we shall still find an œdematous swelling recur every night above the bandage, often in a greater degree than before the bandage was applied.

" (cccxxxvii.)—From this fact it follows, that the increased momentum, which is a leading circumstance in the phlogistic diathesis, is sufficient to produce anasarca or œdema, without the

existence of local inflammation, as the source from which the effusion takes place.

"(CCCXXXVIII.)—A convincing proof of the truth of this principle may be deduced from those œdematous swellings of the lower extremities, which often follow that highly inflammatory disease scarlatina, even when no rheumatic affection of the joints has intervened. Ascites, also, not unfrequently occurs under similar circumstances; and both these forms of dropsy evidently originate in the high phlogistic diathesis which then prevails in the system.

"(CCCXXXIX.)—That such a state in reality often exists in anasarcous dropsy, of which it is the cause, though no previous local inflammation was observable in any part of the system, appears from the quick pulse, of that peculiar bounding kind which accompanies rheumatic and gouty inflammation, the dryness of the tongue, the thirst, the paucity and high colour of the urine, and those marks of what is called inflammation in the blood, when properly drawn from the brachial veins, which are observable in patients so affected.

"(CCCXL.)—The fluid effused in what are supposed to be idiopathic ascites, hydrothorax, and anasarca, is usually of a pale greenish yellow colour, considerably transparent; and has, I believe, all the chemical quality of common serum*. It, however, greatly differs as to its degree of tenuity; having occasionally, in ascites, the consistence of a thick jelly, so that it is difficult to make it pass through the canula of the trocar in the operation of tapping. We may justly presume this viscidity to be owing to a superabundance of albumen.

"(CCCXLI.)—The identity of the fluid, thus effused, with that which arises from certain degrees of inflammation in the same membranes, is certainly a strong argument in favour of a state in them approaching to the phlogistic diathesis.

"(CCCXLII.)—In ascites and hydrothorax, indeed, we often find such a thickening and opacity of the peritonæum and pleura, unaccompanied with disease of the liver or any other part, as would justify us in inferring a previous topical inflammation in those membranes.

"(CCCXLIII.)—In some cases of ascites, this inflammation proceeds in a slow chronic manner, with little or no pain, and sometimes with little fever; but a gradual and constant extravasation seems to be taking place.

"(CCCXLIV.)—Such, indeed, with only occasional slight pains about the belly, and some symptomatic irregularity in the alvine excretions, is the usual commencement of ascites, where, as is very often the case, hepatic disease is wanting; so that the patient is scarcely aware of the existence of important disease, till he is alarmed by a preternatural tumefaction of the abdomen.

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"* In a very recent example of ascites, probably of many years duration, the fluid removed by tapping, and amounting to fifteen beer quarts, exactly resembled in colour and consistence the thin coffee-coloured liquid, which is often vomited up by patients, who have inflammation or ulceration of the villous coat of the stomach. The dark colour was probably owing to the admixture of blood.

" (CCCXLV.)—In the same manner I have seen hydrothorax slowly arise from a diseased state of the pleura, following slight inflammation; accompanied with habitual fever and high-coloured urine; but without the smallest affection whatever of the organs of respiration, till after the lapse of several months, when, at the end of a few days, the patients died, and dissection exhibited copious serous extravasation, without any pulmonary disease.

" (CCCXLVI.)—So, also, anasarca of the lower extremities is often preceded in them by local pains, which have not gone on to inflammation, and have subsided as the effusion has taken place."—pp. 139—145.

We have often seen dropsies arise, and advance in the way here described, particularly several cases of ascites, complicated with an affection of the peritoneum and ovaria. Dr. Parry informs us, that his observation has not furnished him with a single fact in direct proof, that accumulations of fluid may arise from diminished absorption; and we are also persuaded, that instances of the agency of such a cause are extremely rare.

Several pages are occupied in discussing what our author terms the relation of affection in inflammation, dropsy, and hæmorrhage, and the final causes of these affections. He thus distinguishes active and passive hæmorrhage.

" (CCCLXXXVI.)—It is necessary to observe here of hæmorrhage, as before of dropsy, and of the discharges after inflammation, that such a symptom rarely follows the increased momentum which produces it, until the vessels of the part, from which it takes place, have, as it were, offered a long and ineffectual resistance to the impulse of blood.

" (CCCLXXXII.)—So hæmorrhage, like inflammation or dropsy, is not directly as the local disposition in the vessels, or as the degree of the momentum of blood; but in a ratio compounded of the two. Whence it follows, that a great degree of momentum may be required in order to produce hæmorrhage in vessels which are little disposed, while a slight degree will be sufficient in vessels which are strongly disposed. These, therefore, are the two states which constitute active and passive hæmorrhage."—pp. 161, 162.

We should have been much gratified if Dr. Parry had given us some particular remarks relative to long-continued hæmorrhages from the uterus, and to those copious vomitings of blood to which habitual drunkards are liable. He has barely glanced at the former, and entirely overlooked the latter; although we are satisfied that neither are yet well understood. As to the sanguiferous vomitings of drunkards, we shall merely state, that we have rarely known a case of it mortal when treated by purgatives; but have seen several rapidly so, where the lancet was freely employed.

Dr. Parry says, that he has so often known maladies suspended, and life lengthened and made more comfortable, by

the supervention of dropsical effusions; and, on the contrary, so many persons suffer aggravations of disease, and even death, soon after the spontaneous disappearance of dropsy; that he cannot avoid considering that effusion as a salutary process, rather than as an actual disease. But, to borrow the language of Shakspeare,

> "Men may construe things after their fashion,
> "Clear from the purpose of the things themselves."

It has always appeared to us, that dropsy is an actual disease; sometimes even more dangerous than the affection which it accompanies or succeeds, and most frequently tending to the destruction of the patient. We would bring forward facts to substantiate these assertions; but controversy is a point which we always wish to avoid, especially with those whom we highly respect.

A long chapter follows on a simple excessive determination, or fulness of blood, in which there are some good illustrations. Our author conceives the chief difference between simple excessive determination and inflammation, to consist in this; that where there is no inflammation the momentum of blood is not so great, relatively to the capillary vessels of the part; which therefore do not suffer the same affections or actions. Yet he admits that these two states vibrate backwards and forwards into each other; so that what is one day simple excessive determination, shall be inflammation another day, and *vice versâ*. This of itself, he imagines, is a strong proof of one common condition in the two cases. By far the most valuable part of this chapter is that where he treats of simple excessive determinations to the mucous membranes. The pathology of spasmodic asthma is attempted to be explained on very simple principles. We admire it as far as it goes; but surely other parts than the mucous membrane of the trachea are generally concerned in the phenomena of this disease. Our author, however, shall speak for himself on this and other interesting particulars.

"(CCCCLXX.)—The disease called spasmodic asthma is brought on by almost every thing which increases the action of the heart, and which stimulates and fills the vessels of the mucous membrane itself. Thus it is produced by intense heat, by lightness of air, by exercise, by full meals, by stimulating drinks, and by certain effluvia, as those of hay, whether new or old, of sealing wax, and other burning substances, and of ipecacoanha, while powdering, or even sometimes when a paper or bottle of it is opened in the same room with the patient. Of the operation of all these causes I have seen several examples; and similar cases might doubtless be found in the writings or experience of other medical men.

"(CCCCLXXI.)—On the other hand, asthma is relieved by gently open bowels, by heavy air, by inhaling that which is cold, and by

cooling drinks. It diminishes, as soon as mucous secretion begins to take place; and is more speedily and effectually relieved by spitting of blood.

"(CCCCLXXII.)—These facts are convincing proofs of such a preternatural fulness of the vessels of the mucous membrane of the bronchia, as to impede free inspiration, and to produce all the symptoms of spasmodic asthma.

"(CCCCLXXIII.)—But farther; in many of the cases in which certain effluvia, as those of ipecacoanha, hay, &c. produce spasmodic asthma, they usually, first, or at the same time, operate on the mucous membrane of the nose, in the manner already described. A case has also occurred to me of a female, who regularly once a week, for several years, had a fit of what, on the usual principle, might be called spamodic coryza, affecting the eyes and mucous membrane of the nose only. The fit lasted for twenty-four hours, never extending itself to the throat or chest; and if, from any unknown cause, she one week missed the usual fit, she was sure of having it for double that period, or forty-eight hours, the next week.

"(CCCCLXXIV.)—In order, however, to place this matter beyond all doubt, I would mention a patient, who, without pain or any other previous symptom of disease in the thorax, died, in fifteen or twenty minutes, of a sudden attack of difficulty of breathing, without wheezing, and with every symptom of pure spasmodic asthma; and in whom, on dissection, there was found no effusion, or any other disorder, in the lungs or thorax, except an old adhesion, and a complete suffusion of a damask rose colour, amounting, in some patches, almost to blackness, of the entire mucous membrane of the trachea, and of all the ramifications of the bronchial cells, as far as could be traced. This part was examined in consequence of a prior expectation of the state in which it would be found; and no exsudation whatever bedewed, or was attached to, the discoloured membrane."—pp. 197—200.

"(CCCCLXXIX.)—This discussion on the nature and proximate cause of asthma will clear the way for the knowledge of various other affections of mucous membranes, with equal impropriety called spasmodic.

"(CCCCLXXX.)—Of this kind is one species of stricture in the urethra, said to depend, occasionally, on mental causes; and which, probably, arises from a similar turgescence of the vessels of the mucous membrane.

"(CCCCLXXXI.)—Since, also, persons, who have such strictures in the urethra, are peculiarly liable to similar affections in the lower part of the colon and the rectum, it is reasonable to suppose, that, in the latter disorders, strictures begin in the same way, that is, by an increased vascularity of the mucous membrane. It is true that, in the alimentary canal, there may be the coincidence of muscular contraction; and this may occur by that communication of malady between the two coats, which certainly often exists in cases of inflammation. As, also, it is found that simple stricture of the rectum is easily removable at the commencement of the malady, and becomes permanent and incurable only at a more or less late period, when long obstruction to the free passage of the excrements has

given occasion to the violent irritation, it is extremely probable that the permanence, which follows, is owing to a degeneracy of the strictured part into that inflammatory state, which produces scirrhus by extravasation, in the manner already explained.

"(cccclxxxii.)—This theory is confirmed by the discharges of mucus and blood, which occur, and, for a time, relieve such strictures; giving occasion to their being sometimes mistaken for dysentery.

"(cccclxxxiii.)—It receives also additional confirmation from what is found in the stomach, in which there can be no doubt that deep sorrow occasionally produces dyspepsia, and subsequent scirrhosity, with its proper symptoms.

"(cccclxxxiv.)—That idiopathic dyspepsia itself is a morbid fulness of vessels of the villous coat of the stomach, will further appear from various circumstances. For, 1st, Its symptoms are those of increased sensibility; which, it has been before shewn, is usually attended with, if not produced by, increased vascular fulness, in whatever part the excessive tenderness occurs. Thus it suffers uneasiness from such a quantity or quality of food, as would produce no inconvenience whatever in other stomachs. It is customary to attribute this effect to the mere formation in the stomach of acetous acid, or the extrication of an unusual quantity of carbonic acid gas. But it is certain, that neither one nor the other of these substances will produce a similar uneasiness in the stomach of any healthy man. —2dly, There is often a sense of burning or smarting heat, usually denominated heart-burn, which evidently arises from increased turgescence of blood; just as preternatural heat is felt from increased determination of blood to other parts.—3dly, When vomiting occurs in dyspeptic stomachs, which are void of food, the fluid ejected is an unusual quantity of the natural mucous secretion.—4thly, All the symptoms of dyspepsia, as flatus, heart-burn, &c. exist, in the greatest degree, in those cases, which are followed by vomiting of blood in different states; and it is found that these symptoms are often relieved by that discharge, and do not recur, at least in an equal degree, till a similar congestion of blood has taken place in the vessels of the stomach; after which, the symptoms are again relieved by another sanguineous vomiting. This case must be carefully distinguished from those, in which there is scirrhosity and ulceration of the stomach, and in which the blood is not a mere exhalation from the villous coat, but is poured out from eroded vessels. —5thly, as the state of dyspepsia with bloody vomiting is peculiarly incidental to females, who suffer obstruction of the menstrual evacuation; so other females free from that obstruction, but who labour under almost constant dyspepsia, with occasional vomitings of blood, are usually exempt from those symptoms during the periods of the menstrual discharge, but suffer relapses soon after the respective periods have ceased.—6thly, in that state of the tongue, so frequent in the West Indies, in which the mucous membrane of that and the adjacent parts s affected with chronic inflammation, tending to aphthæ and separation, the stomach, apparently by mere extension of disease, suffers all the symptoms of flatus, acidity, &c. which are common to dyspepsia. A similar affection often reaches into the bowels; and is then greatly relieved by discharges of blood per anum."—pp. 201—205.

We much approve the remarks on dyspepsia; because they nearly accord with our own observations, and because we think them well fitted to remove some erroneous notions which are still generally entertained with regard to it.

Having reached that section in which the structure and functions of the nervous system are considered, we were surprised to find the following encomium on two modern writers of notoriety.

"(DXX.)—This system, though long an object of anxious inquiry among anatomists, has been with little success investigated, till of late, that it has received the most extensive and satisfactory illustration from the labours of those acute physiologists, the Doctors GALL and SPURZHEIM."—p. 225.

We are yet to be informed what are those most extensive and satisfactory illustrations here asserted; for though Dr. Parry has adopted the descriptions and conjectures of Gall and Spurzheim, we must confess, that we have not received any additional information from them. There are certainly many better anatomical accounts of the brain on record than that given by Dr. Parry; and, in particular, we think that he has not sufficiently regarded the structure and functions of the venous apparatus of that organ. Indeed, in other parts of this valuable volume, strong presumptions are afforded that our author has something yet to learn with respect to the functions of the venous system in general. Not content with having introduced the Doctors Gall and Spurzheim as anatomists and physiologists, he brings them forward as profound philosophers in another place.

"(DCLVII.)—The subject, however, of the connection between the powers and propensities of the mind, and the circumstances of bodily form and tendency to disease, as comprehended under the science of Temperaments, has been thought worthy of occupying the attention of medical philosophers from the time of Hippocrates to the present day. Those, who would see to what fanciful lengths speculative principles may be carried by ingenious men, may consult on the subject Cabanis*.

"(DCLVIII.)—Of late, the physiologists whom I have before quoted, MM. Gall and Spurzheim, have viewed the subject in another light; and have endeavoured to shew, that the capacity for the respective arts and sciences, as well as the sentiments, moral tendencies, and other intellectual faculties, are connected with the comparative proportions of certain parts of the convolutions of the brain, and indicated by the proportions of corresponding parts of the cranium.

"(DCLIX.)—These conclusions, which are illustrated by those physiologists with great force of demonstration, have not hitherto received the sanction of general experience. But to deride them solely on that account would be highly absurd; since we are justified in concluding, that, as it has pleased Providence to make an or-

* Rapports du Physique et du Morale de l'Homme, p. 45.

ganized material substance the medium of all the mental faculties, these several faculties may depend, for their existence, on certain parts of the organized mass, and for their degree, on the proportion of those parts."—pp. 280—281.

New and fallacious theories may derive an unmerited influence, from their abettors drawing stronger inferences than the premises justify; an error into which, we are afraid, our author has fallen. He pleads that it would be highly absurd to deride the conclusions of Gall and Spurzheim because they have not received the sanction of general experience; and yet in another place says, that these conclusions are illustrated with great force of demonstration. Now we beg leave to ask, what force of demonstration can there be in conclusions which have not received the general sanction?—nay, which, in most instances, were directly counter to the common sense of mankind?

We dare venture to assert (as indeed has been already done) that the prominences of the brain, alluded to above, are not generally indicated by correspondent and proportionate prominences of the cranium*; and, therefore, the very foundation of this new system is laid in absolute error. Dr. Parry evidently conceives that the brain is not only the medium of all the mental faculties, but that even the existence and degree of those faculties may depend upon it. But it cannot be controverted that numerous individuals have retained their mental faculties to the last, whose brains after death were found variously and much diseased. From such striking facts, it does not appear certain, that the brain is actually the medium through which all the mental powers operate; and much less evident, that those powers depend for their existence and degree on that organ. We could pursue this subject much further, but it is quite unnecessary. The conjectures of Gall and Spurzheim will, for a time, float upon the current of public opinion, and then, bursting like a bubble, will be succeeded by other metaphysical whimsies of as brief a date.

Dr. Parry thinks that nearly all the modifications of the disorders usually called nervous, originate in an excessive momentum of blood in the vessels of the brain. We certainly believe, that many of these affections depend upon the cause here stated; but we are convinced from experience, that many of them also depend upon other causes; in a word, we are disposed to agree with Dr. Armstrong, that they originate in some derangement, not only of the viscera of the head, but also of the thorax and abdomen†.

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* Vide Review of Dr. Spurzheim's Work, *Repository*, vol. iv. p. 53.

† Vide Brief Hints, relative to the Improvement of the Pathology and Treatment of those Chronic Diseases usually termed Nervous. By John Armstrong, M.D. Sunderland. Edinburgh Medical and Surgical Journal, No. 44. p. 416.

Pursuing the subject of excessive determination of blood to the brain, Dr. Parry makes it the occasion of sleeplessness, noises in the head, dreaming, pain of the head, and vertigo. Upon the last of these states, his remarks are particularly deserving of attention.

"(DCCXVII.)—The term Vertigo is certainly applied to at least two different species of sensation in the head. The first, and proper, species is characterized by a feeling of quick rotation in the inside of the head; and, I believe, it is this species which precedes epileptic, paralytic, and apoplectic attacks. In a moment after its commencement, the patient is often seized with nausea, and sometimes with vomiting; and, at other times, almost immediately falls senseless.

"(DCCXVIII.)—Another species is distinguished by a sensation, as if objects were approaching us, or more usually receding from us, and becoming dark. This is the feeling which frequently occurs, when, after stooping, one suddenly rises up into the erect posture. In its symptoms it is very different from the former; is rarely, if ever, accompanied with sickness, and ought rather to be called Swimming, than Giddiness or Vertigo. I believe, also, that it arises from a state of circulation totally opposite to that in the former case; for while, in vertigo, there is a greater impulse of blood to the brain than is natural, the sensation in swimming arises from the want of due impetus in the cerebral vessels. This difference is proved by these farther circumstances, that true vertigo may be relieved by blood-letting and compression of the carotids, while swimming is increased by the compression, and is actually similar to the feeling which precedes syncope from blood-letting."—p. 305, 306.

The distinction above laid down may, and we believe does, hold good in some cases; but we dare assert that it will generally be found a dangerous fallacy. We have seen enough of vertigo to be convinced, that for the most part it demands evacuations for its removal, by whatever sensations described. It is painful to us to differ so decidedly from our author; but, our sense of duty, and the influence of his name, compel us to warn our brethren against a dubious diagnostic, upon which the health, and even the life, of a fellow-creature might be lost.

Dr. Parry passes on to the pathology of epilepsy, convulsions, chorea, shaking palsy, wry neck, hysteria, hypochondriasis, insanity, hydrocephalus internus, and other affections; concerning which many luminous hints are thrown out. But the phenomena of almost all of them are made subservient to an excessive determination of blood to the brain; and of course the real nature and extent of many of them very inadequately explained. We do most sincerely believe that every unbiassed and experienced practitioner will allow, that several of the disorders above enumerated have an inseparable connection with

derangements of the abdominal viscera. Our author is, however, under the dominion of a favourite theory, which prompts him to reduce the greater part of diseases to a simple and general law. We know that many physicians and philosophers are fond of talking about the simplicity of Nature: but, as the organs and functions of the human frame are various and complicated; so are the constitutions, states, and characters of its diseases. The morbid affections of a single organ, much less of almost the whole system, cannot be fairly reduced to a general law. The progress of physic has often been impeded by the generalization of ardent and ingenious minds; for, on intricate subjects, the majority of men rather blindly follow the suggestions of others, than take the trouble to observe and reflect for themselves.

We shall close our extracts from this valuable work with the author's recapitulation:

" (MXV.)—Thus have I endeavoured to shew, first, That the far greater number of the diseases, incidental to the human frame, depends, at some point or other, of that succession of antecedent circumstances, which constitute, the chain of causes, on excessive momentum of blood, whether local or general. 2dly, That this momentum is not, necessarily, always excessive absolutely, that is, in relation to the usual state of perfect health in the mass of mankind; but relatively to the state of the individual at the period given. 3dly, That many of those movements, which constitute what is called disease, and which, for the time, produce disorder of the different functions, whether of body or mind, are, in reality, processes, the general tendency of which is to restore health, and to prolong life; although, on particular occasions, their operation may be either defective, on one hand, or excessive, on the other; or may be even sometimes directed to parts, which seem, as it were, unnecessarily implicated in the vain and fatal conflict.

" (MXVI.)—The view, which I have thus taken of animal pathology, is consonant to that simplicity, which pervades all the other known operations of Nature. The blood is the material, from which, by the aid of its appropriate system of vessels, the animal is formed, its life preserved, and its health maintained; and by the immediate affection of the same system, it chiefly suffers disease, decay, and death.

" (MXVII.)—This theory is of a very different character from those, which deduce the greater number of diseases from an assumed disorder of one particular viscus, or local function. It is founded on an observation of certain like phænomena, occurring in a system existing in every part of the body; and, therefore, constituting a law, under which are comprehended the affections, not of one part only, but of the whole frame.

" (MXVIII.)—Neither is it at all incompatible with the opinions of certain ingenious pathologists, who would investigate the ulterior design of the several morbid movements of the animal system. On

the contrary, while it admits, and even assumes, the general principle of salutary purposes, it tends to ascertain the means, or instruments, by which those purposes are effected.—pp. 459—461.

This volume should be in the library of every medical practitioner. But as it requires to be read with caution, on account of its sweeping conclusions, the animadversions of an impartial reviewer will not be entirely superfluous. To Dr. Parry, personally, we entertain nothing but sentiments of unmingled respect. His long and useful life claims this from every friend of humanity and science. If we have spoken freely on some parts of his work, we have not been insensible to the excellencies of other parts of it.

We earnestly hope, that nothing will prevent Dr. Parry from completing the second part of this work, in which he contemplates giving the proofs of the principles now developed. We shall be among the first to greet its announcement; for the observations of an experienced, enlightened, and upright physician cannot but contribute to extend the sphere of medical knowledge.

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## II.

*Medical Transactions published by the College of Physicians in London.* Vol. V. 8vo. pp. 462. Longman and Co. 1815.

We are a little disposed to believe, that the fate of the last volume which the College sent forth has convinced that Learned Body that talent, like armour, is apt to become rusty when unemployed; and therefore the present has been brought forward in a shorter space of time than any of its predecessors. In our observations on the former, we expressed our conviction that its appearance was a proof that the College had "still at heart the improvement of the Profession, and the advancement of Medical Literature;" and we should be even more inclined to suppose that this is the feeling which has accelerated the exertions of the present contributors, could we close our eyes to the emulation which the well-merited reputation of the Transactions of a Cotemporary Society, that ranks among its Members some of the first medical characters of the age, has, we have good reason for believing, undoubtedly excited. But, be this as it may, we have no hesitation in affirming, that the volume before us, generally speaking, bears a stamp of a higher character than its immediate precursor; is more of a practical nature; and hence, as it will be more extensively useful, it will be more generally read; and in a considerably greater degree tend to advance the character of the College.

And certainly we have a right to expect that this should be the case; for although we are not so inexperienced as to look for oracular wisdom from any individuals, however proudly dignified with academical or collegiate honours, yet we think it but reasonable to expect that artists of high reputation should not only display in their works the skill by which their fame has been acquired, but should send forth such productions only as may serve as models for guiding the future student, fixing his taste, and perfecting his judgment. When the reverse takes place, in the medical world in particular, men in elevated situations can only be regarded as public evils: like the baneful vapour which remains innocuous while it is hidden in the obscurity of the morass, when elevated in the atmosphere, and wafted to the abodes of men, never fails to spread pestilence, and disease, and death.

As in our examination of the former volume, we have not followed the arrangement of the College; but have taken the papers of each contributor in immediate succession. From the nature of the subjects, they do not admit of close criticism; and we have chosen rather to allow our readers to judge for themselves from an ample analysis, than to attempt any critical examination of their merits.

The first paper is a detail of several cases of *Diabetes*, successfully treated by the late Dr. Satterley. These cases are extremely well drawn up; and illustrate in a very satisfactory manner the advantages to be derived from a judicious employment of the lancet, as proposed by Dr. Watt*. In the first in particular, the symptoms were strongly marked, and the progressive beneficial effects of the successive bleedings so evident, as to induce the patient to desire a more frequent repetition of the remedy than was deemed prudent.

Previous to the first bleeding, sixteen quarts of urine were passed in the twenty-four hours, "which had the violet smell, was sweet to the taste, and yielded an evaporation from each pound of more than ℥jss. of a black treacle." It also exhibited on its surface minute globules of oil, such as has been frequently noticed by writers on diabetes. After the abstraction of ℥xiv. of blood, eleven quarts only of urine were made in the subsequent twenty-four hours; and after the second bleeding, which was to the amount of ℥xviij., the quantity was further reduced to six quarts. Some days afterwards, however, it increased to

* Although Dr. Watt has generally been regarded as the original proposer of the use of the lancet in Diabetes, yet this is by no means the case. For the earliest account of this practice, vide *Archigenes apud Aëtium Tetrab.* l. iii. *Serm.* iii. c. 2.

nine quarts; but was again reduced to six by taking away twenty ounces of blood; and this quantity varied but little, until after four more successive bleedings, of twenty and eighteen ounces each, when it "was gradually diminished from five to three and two quarts, and all the other symptoms vanished." The patient had been put upon a meat diet after the first bleeding, the quantity of his drink limited, and lime water substituted for a part of it; the bowels were kept open by means of castor oil and aloetic pills, and at the same time a grain of calomel with a few grains of Dover's powder were exhibited every evening at bed-time.

The other cases are less detailed; but the results are equally satisfactory as to the advantages of blood-letting. In all of them the first-drawn blood had the appearance of a homogeneous black mass, possessing no degree of firmness, but resembling treacle, and not separating by rest into serum and crassamentum. After each bleeding, however, it became firmer and more natural in its appearance; and in the first case, after the fourth venesection, "the crassamentum was covered with a membrane analogous to the buffy coat, but of an intensely bright scarlet colour." The quantity of saccharine matter also yielded by each quart of urine was found to diminish "in proportion as the urine itself was diminished;" but even when it was reduced to two quarts, sugar was found in it.

In reasoning upon the effects of bleeding in these cases, Dr. Satterley offers some very sensible remarks on the well-known fact, "that Nature is capable of attaining by various means the same end;" and endeavours to reconcile on these principles his own success and that of Dr. Warren, who cured several cases of the disease by opium*. The following is his explanation of the rationale of his own practice:

"In all the cases I have brought forward, pain in the loins, more or less violent, was present, and I considered this symptom as indicative of some inflammatory affection of the kidneys, which in less exhausted states of constitution would require depletion. Now this symptom either has not existed in most of the recorded cases of Diabetes, or has existed in so slight a degree as to be overlooked; its presence therefore or absence may constitute a strong ground of difference in the treatment of that complaint; indeed this peculiar modification of the system, which assumes the appearance of debility as its characteristic, while inflammation or increased action is its essence, seems little understood, yet to it I look for an explanation of the fact, that apparent debility is sometimes removable by the very means which, *à priori*, we should suppose would aggravate it. It is, I suspect, this lurking inflammatory action which creates the difference

* Vide *Medical Transaction*, vol. iv. p. 190.

in those various affections comprised under the general term debility. The weakness attendant on fever, and on many other diseases, seems totally different from that accompanying the disease of which we are now treating."—p. 19.

Now although we must admit to its full extent the excellence of Dr. Satterley's practice, we are by no means disposed to admit his theory. Pain in the loins is not to be regarded as always indicative of inflammation of the kidneys; and although there is a frequent desire to pass urine in that state of the organ, yet neither the quantity nor the change produced on the secreted fluid are concomitant with it. But it is more easy to expose the weak parts of a theory, than to substitute another in its place; and therefore whatever may be the merits of that of our author, we are of opinion that the Profession is indebted to him for advancing its confidence in a mode of practice, which we have always regarded as requiring time only to be established as the most judicious and certain in this formidable disease.

A second paper by Dr. Satterley, the twenty-second in the arrangement of the volume, describes one of those anomalies which occasionally occur in disease, and set at defiance all our attempts to assign their causes. It is intitled, "*A Case of* Fever, *attended with inordinate appetite.*"

The patient was a young gentlemen, sixteen years of age, who, with all the other symptoms of fever, attended at first with powerful determination to the head, shewed the usual want of appetite and dislike to food, owing to the depravation of the powers of digestion attendant on almost all pyrexial diseases, until the fifth day; when the most insatiable craving for food came on, and continued during the whole period of the disease, which was extended for upwards of thirty days, with all the ordinary characteristics of typhus. Dr. Satterley thus describes this singular concomitant of his patient's disease:

"In a day or two my attention was again called to this return of appetite, by his aunt's representing to me the impossibility of satisfying it by the diet allowed in sick rooms; and I was astonished to be told, that exclusively of several basons of sago and other slops, he daily eat some pounds of biscuits, &c. By way of experiment, animal food, in small quantities, was substituted, in the hope that its stimulus might be more efficacious than that of a vegetable diet, in checking this excess of appetite; but I was disappointed, for, its flavour being more agreeable, its exhibition was followed by more incessant cravings. At this period of the disease, the boy would eat a pound and a half of beef-steaks, a large fowl, or a couple of rabbits at a meal, without apparently satisfying his appetite, for in a few minutes after he had devoured, with indescribable greediness, meat adequate to the support of the stoutest labourer, he would deny his having tasted food, and earnestly entreat for a further supply, in

which, if he were indulged, it would only be to be followed by similar demands; independently of three or four *regular meals*, he was uninterruptedly eating dry bread, biscuits, or fruits, many pounds of which he daily devoured.

"Every endeavour to abridge this quantity of food producing the greatest distress, and materially increasing his febrile symptoms, he was at last permitted to eat as much as he pleased, and the only restriction was to supply him, in the intervals of his meals, with such edibles, as from their hardness gave him the most trouble to masticate; indeed with the exception of animal food, which was the particular object of his desire, it seemed indifferent to him what he eat; substances the most incongruous were greedily swallowed, and when all other things failed, from the bed-clothes, or his fingers, he would endeavour to obtain a supply; the latter he often, apparently from hunger, bit so as to make them bleed; the inclination for food came on regularly with the paroxysm of fever, and continued unabated until that subsided, when he usually fell into a sound sleep. The period of the recurrence of the paroxysm was very uncertain, but it was always marked by a distinct circumscribed redness of one or both cheeks; the moment this spot was visible, the boy would rouse himself (for he was at other times either sleeping, or dull and torpid), and immediately begin his craving for food as the fever advanced (and it ordinarily ran very high): this craving increased, until, after perhaps ten or twelve hours, both the fever and appetite subsided." —pp. *353—355.*

The most remarkable circumstance of the case was, that the digestive powers of the stomach were equal to the supply, and by the aid of strong purgatives, six or seven copious stools daily were procured, equal in bulk and consistence to those of a strong healthy adult.

To the present volume, the President has contributed four papers. The first (which is the second of the volume) is "*On Leucorrhœa;*" and intended chiefly to recommend practitioners to endeavour to procure an examination per vaginam, before prescribing for that disease; and to recommend the *liquor plumbi acetatis dilutus* as an injection when any symptoms of inflammatory action are present, and even when a cancerous state of the uterus is suspected. We were rather surprized at the following observation, by which it appears that Dr. Latham regards the use of the solution of acetate of lead as perfectly new in this class of diseases: "Indeed," says he, "I do not now that I have ever seen it employed, or even remember it to have been proposed in such cases as these." We can only answer for ourselves, that we have commonly ordered it as a local remedy in similar affections: and were not aware that we were acting otherwise than according to the common usage of the profession.

In pointing out the circumstances under which this remedy can be employed with the greatest prospect of benefit, the author adds—

"Still, however, if the womb be not irregular in its surface, so as to give us the idea of an advancing scirrhosity, even although studded, as is sometimes the case, with a few pemphigus-like pustules, containing a watery or glairy fluid, yet this condition of the patient is not to be considered as irremediable."—p. 30.

Now we must confess that we really cannot comprehend where these "pemphigus-like pustules" are seated; or, if they are within the unimpregnated womb, how their presence is to be ascertained by the ordinary method of examination.

The second paper, by Dr. LATHAM, (art. V. of the volume), is intended to point out the principal circumstance which contributes in securing the effect of spirit of turpentine as a worm medicine. Some instances are detailed of its beneficial effects; but, as in every case in which it has proved useful, the remedy has been exhibited in very large doses: the learned President is of opinion, that much of the good effect arises from

"the remedy being distributed throughout every part of the intestines, so as thereby to prevent the possibility of the worms escaping its anthelmintic power, and more effectually to provide a relief for that morbid condition of the bowels whence they most probably derive their existence."—p. 62.

As a proof of the correctness of this mode of reasoning, several examples are brought forward of the excellent effects of fern root and other worm medicines when given in large doses, and continued for several successive days, although they had failed when exhibited in the moderate doses usually prescribed. The Doctor has certainly made good his point as far as these observations establish the necessity of employing anthelmintics in "greatly increased doses;" and as it is probable that spirit of turpentine in particular produces its visible effects, in expelling tenia, by killing the worm, it is evident that the more widely its influence can be extended over the whole of the intestinal canal, the more certain must be the expulsion of the entire worm.

Some remarks on the efficacy of spirit of turpentine in epilepsy are subjoined to this paper; from which it appears, that Dr. Latham had employed this remedy in epileptic cases long before the publication of Dr. Percival's cases; and this gentleman has admitted, that he first employed it from the recommendation which he had seen given of it in Dr. Latham's work on Diabetes. A very satisfactory case, illustrative of its efficacy, is detailed; in which an ounce of it was given for a

dose. It excited some slight uneasiness in the stomach; and then

" passed into the intestines, and produced six very large stools, which the person who called upon me at the end of the week had not examined. He told me, however, what was of infinitely more consequence, that the lady had had no fits whatever since she had taken the turpentine, and that her family were convinced, that to it alone she was indebted for the suspension of her complaint. She was of course desired to take the medicine again whenever she might be threatened with another paroxysm, and this direction was followed with considerable advantage."---pp. 69.

Dr. Latham states, that he has usually exhibited the remedy in one large dose, and waited until another paroxysm; but he suggests that in the event of the fits recurring, it would be more adviseable to give the same quantity daily in divided doses, as practised by Dr. Percival. He properly fences his opinion of the efficacy of the remedy by remarking, that it can only be successfully employed "in cases depending upon a cause unconnected with diseased organization, and which is producing too great an excitement in the nervous system."

The third paper of the worthy PRESIDENT is one of very considerable interest, and treats of a disease which is much less uncommon than he imagines, and is by no means confined to the class of individuals he points out—those whose habits have been injured by a long residence in warm climates. We have seen it in individuals who have never been out of this country, and whose constitutions had not been impaired by intemperance, or even any irregularities, such as too frequently the majority of men are apt to commit. This disease, which displays many of the characteristics of the gangrenous aphthæ of children, is named by our author *Cachexia aphthosa*. The following is a correct enumeration of the symptoms, except that, in the cases we have witnessed, the salivation has commenced sooner, has been a very troublesome concomitant; and always one of the most difficult symptoms to manage.

" A slow hectic fever, with a pulse weak and a little quicker than natural, marks the commencement of this disease. The urine is small in quantity, and sometimes exhibits a milky or wheyish turbidness. There is some thirst, and the skin begins to be rather rough and dry. Pimples on the edges of the tongue, with superficial blisters within the mouth and fauces, next succeed, and a corresponding heat and soreness of the stomach more or less accompany this and every stage of the disease. The whole intestinal canal soon afterwards becomes affected, and diarrhœa consequently comes on. The discharges, both in colour and consistence, are more

like thick oatmeal gruel, in an incipient state of fermentation, than fæces; and they are sometimes sour, but seldom offensive, except when occasionally mixed with mucus, or blood from abraded vessels, when of course the peculiar odour of putrid animal matter is sufficiently manifested.

"This may be considered as a sort of fit or paroxysm of cachexia aphthosa, which, whether assisted by medicine or left to itself, will frequently admit of respite or temporary relief. It, however, is not of long duration, for the paroxysm soon recurs with every symptom aggravated. It is then that the mind of the patient suffers a fearful despondency: for by this time he has usually discovered the real nature of his complaint, and looks upon any alleviation as merely the suspension of his misery. He expects the next attack to be accompanied with circumstances still more violent and formidable. The ulceration of the tongue and mouth then becomes more painful, the salivary discharge is every moment provoked from a denuded surface, and the disordered state of the stomach and intestines is intolerably oppressive. Death, in its approach, however, still unkindly lingers, and seems as it were unwilling to overtake its languid victim, until, worn down with inquietude and fatigue, he sinks into a state of exhausted apathy, and life deserts him."---pp. 79---82.

In none of the cases we have seen has the fatal termination here alluded to occurred; but we shall not pretend to affirm that this favourable issue has arisen from any superiority of treatment. The plan Dr. Latham recommends in the commencement, when the disease may be regarded as simply dyspeptic, is the exhibition of "a few grains of submuriate of mercury, with any bitter infusion, rendered purgative with a little rhubarb or magnesia:" but when the disease is advanced, he relies chiefly on mercury; either the ointment applied by friction on the "hepactic region," or some of its salts taken into the stomach in small alterative doses, combined with opium; interposing occasional ipecacuanha emetics; and, after the mercurials, exhibiting light bitters and absorbents. As a local application to the mouth, he recommends borax and opium, dissolved in some mucilaginous decoction.

On this practice we would observe, that, as the disease is evidently connected with a very irritable state of the nervous system, mercurials, by increasing this state, and on account of the salivation, have always appeared to us inadmissible; and although we have occasionally interposed submuriate of mercury, conjoined with purgatives, to clear the primæ viæ, our chief reliance has been on decoction of cinchona bark, combined with subcarbonate of soda. As a local application, we have seen honey of borax useful; but nothing has appeared to heal the little ulcers of the gums and cheeks so rapidly as a solution of the nitrate of silver, in the proportion of two grains to a fluid

ounce of water. Under this treatment, and a light animal diet, with a free exposure to the air in mild weather, the symptoms of the complaint have rapidly yielded.

The last paper of Dr. LATHAM, the twenty-first of the Transactions, relates to "*the Safety and Efficacy of the internal use of the* Superacetate of Lead *in Pulmonary Consumption.* The fact of the innocuous nature of superacetate of lead, when taken into the stomach in combination with opium, was first pointed out by the late Dr. Reynolds; and its sedative powers as a remedy in active hæmorrhagy ascertained; but, although this has been well established, and its use in pulmonary consumption revived, yet it is still prescribed with great reluctance by the majority of practitioners*. The President, reasoning on its effects, is disposed to believe that the increased quantity of the acetic acid contained in the supersalt is the cause of its innocuousness: but, however this may be, the fact of the safety of superacetate of lead as an internal remedy is sufficiently determined; and, although no new fact is elucidated by this paper, yet the establishing the confidence of practitioners as to the safety of a remedy of very great activity, is an object of no small importance.

The third paper in the volume is an "*Account*, by Dr. HEBERDEN, *of a* Contrivance, *which was found of singular Benefit in stopping the* Excoriation *and* Ulceration *consequent upon continued Pressure in Bed.*" The machine described is well adapted to answer the object for which it is intended; but as the description cannot be readily understood without the plate, we must refer our readers to the paper itself.

The thirteenth paper is also by the same author, and contains the description of "*a Case of* Water in the Head, *unattended by its usual Symptoms.*" The subject of this case was a man upwards of eighty years of age, who, although he had been long deaf, yet had not suffered under any very serious illness until six weeks before his death. At this time he had an apoplectic fit, from which he apparently, however, soon recovered, and did not experience any giddiness, pain of the head, or other symptom, such as might have been expected to follow, until

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* The following is the formula Dr. Latham employs:

℞ Plumbi Superacetas, gr. iij.
Opii purificati, gr. j.
Confectionis Rosæ, q. s.

ut fiant pilulæ tres, quarum una sumatur ter quotidie.

some weeks afterwards, when he again became indisposed, and died in a few hours. The following were the appearances observed on dissection:

"On attempting to remove the calvaria, the dura mater adhered with so much firmness, as to split into layers, rather than quit its connexion with the bone. The arachnoid membrane was thickened, of a milky colour, and much elevated by the subjacent fluid, which pervaded the cellular structure of the pia mater, to the amount of four ounces. The substance of the brain was healthy. The ventricles were greatly enlarged, and contained about eight ounces of transparent water. The plexus choroides was pale and void of vessels, containing many minute vesicles resembling hydatids, and one solid tumour, which appeared to contain the same calculous matter which is met with in the pineal gland. The internal carotid and basilary arteries, with many of their primary branches, were ossified. In the chest, the lungs were found firmly adhering to the parietes; and some small tumours, containing calculous matter, probably phosphate of lime, were dispersed through their substance. In the heart, the valves of the left auriculo-ventricular opening were partially ossified, those of the aorta completely so, and small depositions of bony matter were found on the tendinous portions of the carneæ columnæ. The coronary artery was ossified through its whole extent. The aorta, soon after emerging from the ventricle, formed a true aneurismal pouch, consisting of a dilatation of the coats of the artery, without any rupture of its internal lining. The descending thoracic and abdominal aorta, with all their primary branches, were converted into cylinders of bone, as also were the external and internal iliacs.

"The intestines were in many places firmly adhering by their peritonæal surfaces, apparently the result of former attacks of inflammation. At each abdominal ring there was a small hernial sac.

"The liver was healthy: the spleen covered with a bony deposition, between its peritonæal covering and tunica propria.

"The bladder contained some turbid urine; and a small spot near its neck had a blackened appearance. The prostate gland was enlarged. The kidneys were healthy. In the left testicle there was a collection of water."—pp. 174—176.

No particular inference can be drawn from these appearances explanatory of the phenomena of this affection, which Dr. Heberden regards as having been of long continuance. He supposes that the increase of the fluid in the brain, the pressure of which was ultimately sufficient to extinguish life, having been so gradual, the habit became accustomed to it, and the brain acquiring a principle of self-preservation, no other symptom of the morbid state of the organ, except the deafness, was apparent, until the distending power became too considerable.

In his prefatory remarks to this paper, the author seems to

be aware that the case it relates is rather to be regarded as curious, than likely to "contribute to perfect our knowledge."

The next paper, the fourth in the order of the arrangement, is "*On* Colica Pictonum," by Dr. EDWARD ROBERTS. It is intended to shew, from the history of two cases of this disease, that the paralysis of the wrists, which often attend it, as well as the torpor of the abdominal viscera, is more rapidly relieved by the internal use of nitrate of silver, after the due exhibition of castor oil, than by opium or any other means. The dose of the medicine was increased, in one of the cases, five grains and a half; and produced an evident effect both on the alimentary canal and on the nervous system.

Another paper, by Dr. Roberts, describes "*a Case of* Elephantiasis," which came under his care in Saint Bartholomew's Hospital. It confirmed the observation of Dr. Adams, that in this affection the genitals diminish, and all sexual appetite is lost. It was remarkable in this case, that, although the hair of the eye-brows had fallen off, and the eye-lids were tuberculated even on their edges, yet the cilia remained*; a circumstance overlooked in the description of our author; who also observes that "there were, besides, glandular tumours near the groin on both sides;" while Mr. Lawrence, in describing the same case in a communication to the Medico-Chirurgical Society, says, "certainly there was no decided swelling in the situation of the femoral tumour†."

Cinchona, and other tonics, with alterative doses of submuriate of mercury, in combination with opium, were tried, without any beneficial effect; and although a full diet produced a favourable modification of the disease, yet it was not cured.

The most voluminous contributor to the present volume, is Dr. POWELL. The first of three papers which he has communicated (the 7th of the arrangement), is intitled "*Observations upon some Cases of* Paralytic Affection." He commences it by remarking that Dr. Heberden has erred in including under the head of apoplexy and palsy, in his Observations on the Increase and Decrease of different Diseases, many cases of sudden termination in death; and thence inferring that these complaints "have been upon the increase through the 18th century;" whereas, from his own experience, Dr. Powell thinks many of these sudden deaths are to be ascribed to affections of the heart, which, says he,

"seem to me to have multiplied to observation, much in proportion

* Vide *Medico-Chirurgical Transactions*, vol. v. p. 212.

† Ibid, p. 213.

as they have been more closely investigated and better understood; until they have become at the present period among the most frequent occurrences in the practice of medicine."— p. 97.

The chief object, however, of this paper, is to prove that apoplectic and paralytic affections may occur without any congestion, or extravasation of blood in the head; and "originate in a peculiar condition of the brain and nerves alone, unattended by any discoverable alteration in their anatomical structure." Particular states of the stomach and local irritations will produce this state; and four cases are detailed in the paper, in which it was induced by the operation of cold; to which we could add several others, which have come within our own observation. The last of the cases detailed by Dr. Powell having terminated fatally, on a careful examination of the brain, "no congestion, no effusion, no alteration of any kind was discoverable in it."

The practice which Dr. Powell recommends, as having proved successful, is the topical application of heat and moisture to the affected parts; and "a full dose of pulvis ipecacuanha compositus at night, with some warm aqueous drink, so as to excite perspiration."

Dr. Powell's second paper contains a detail of "*Some Cases illustrative of the* Pathology of the Brain."

We agree with this author in his observation, that "the pathology of the brain and nervous system appears even at present to be more defective than any other of the branches of medical science;" and that it is only "by the accumulation of facts, and by the connection of symptoms, with organic alterations of structure," that our knowledge of diseases of the nervous system can be perfected. With this object in view, the cases in the paper before us have been brought forward; but as they do not readily admit of abridgment, we will merely extract the recapitulation of the appearances recorded on dissection of those that terminated fatally, with a reference to the cases. It is necessary however to observe, that some error has crept into the enumeration; for the paper actually contains thirteen cases only, although a fourteenth is referred to in the recapitulation.

"1. A healthy state of brain after stupor, insensibility, and convulsion. 2. Effusion of blood, with an instantaneous extinction of life. 3. A loaded state of the blood-vessels of the membranes, and an effusion of coloured fluid into the ventricles. 4. A strong and distinct adventitious membrane, covering the right hemisphere of the brain. 5. Caries of the temporal bone, with an effusion of pus and coagulable lymph under the dura mater of the right side. 6. Ulceration in the anterior lobe of each hemisphere of the brain, with aqueous effusion into the ventricles. 12. Ulceration in the brain. 7, 8, 9, 10, 11, 13. Tumours in the brain, of various structures, and

in different situations. 14. A state of apoplexy, speedily removed by arteriotomy."—p. 255.

The third communication of the same author consists of "*Three Cases of* Convulsive Affections." The first illustrates in a very satisfactory manner the effect of camphor "in allaying inordinate irritability." The patient was a man of thirty-seven years of age, who was affected with singular and very severe convulsive motions in the muscles of the upper extremities, and of the trunk; in some degree resembling chorea, although not that disease. Oil of turpentine, belladonna, cinchona, nitrate of silver, opium, assafœtida, and several other antispasmodics, were successively tried, not only without advantage, but the disease evidently increased under their influence. Camphor, however, was ultimately given with immediate benefit, and soon completely removed the complaint.

"On March 16, I found from the books that camphor in substance was the last medicine he had taken previously to the removal of his former attack, and his own remembrance of its effects led me to a repetition of it. He began to take ten grains every four hours; within three days he certainly became much more steady, and from the 20th he had no attack of muscular convulsion whatever; the dose was on the 24th increased to twelve grains, and on the 28th to fifteen grains; on the 13th of February it was diminished to ten grains, and on the 20th he left the hospital in a tolerably good state of health. The termination of his convulsions, on the 20th of January, was not however the termination of his complaints; he slept badly, and was irritable during the remainder of his stay; he sometimes complained of weight about his head, or of heat at night, or of shortness of breath, and a feeling of palpitation at the heart, when there was none perceptible to the touch. On the 28th, his pulse had risen to 120, but on February 2, it had subsided to 72, and since he left the hospital I have occasionally seen him, when he has complained of disturbed sensations, which have varied in their seat, but he has had at present no return of the convulsions.—pp. 336—338.

The other two are marked cases of chorea, in neither of which the nitrate of silver was found to exert any beneficial effect; and Dr. Powell candidly states, that these cases are related chiefly with the view of checking the accounts he formerly gave of the effects of that remedy. In the one, the disease undoubtedly arose from irritation of the bowels, and was cured by a course of the powder of scammony with calomel*, given in doses of ten grains every other morning. From four to six green, slimy, offensive stools were at first brought away in the course of the day; "but in about a week, they became more

* Vide *Pharmacop. Lond.* 1787.

natural, and continued so;" and in a short time he was restored to a state of health. In the other, in which the convulsive motions were so strong, that the patient, a female, was obliged to be strapped down, very little benefit was obtained from purging with calomel and scammony; and the nitrate was not given, as she could not swallow pills. One fluid ounce of oil of turpentine was therefore taken, and the effect was extremely violent.

"She asked constantly and in a low hurried manner for water, and was more strongly convulsed for some time, and could scarcely be restrained in bed by the efforts of the nurses; she was delirious, she vomited and was largely purged; but after about eight hours had elapsed she became at once comparatively quiet, and wholly free from convulsions, and she got some sleep in that night. On the 24th she required no further restraint, and could lie in her bed quietly, but any attempt at motion, or speaking, produced great agitation. She had also slightly menstruated after the oil; she then took the nitrate of silver in solution, and on May 2, she was able to dress herself and sit up all the day; she became more and more steady, and was able in a few days to assist in bringing the bread, from the place where it is delivered, to her ward. The same medicine was given in pills for greater convenience, and in a dose of two grains, every four hours, and she began also the daily use of the cold bath. Her appetite has been good, her bowels open, and she has slept well; and on this present day, May 8, I consider her to be so far advanced towards convalescence, as so leave no doubt of her speedy recovery, and to have no hesitation about this communication of her case."—pp. 373—375.

In the conclusion of his paper, Dr. Powell suggests the propriety of trying oil of turpentine in hydrophobia; and although we have not, *à priori*, any great expectation that it would prove successful, yet in a disease which has hitherto baffled every method of treatment, this hint is certainly worthy of attention.

The eighth paper is the most curious in the volume, as it "brings forward a new cause of morbid excitement of the brain and nervous system." It is intitled "*On the Effects of certain* Articles of Food, especially Oysters, *on Women after* Childbirth." By JOHN CLARKE, M.D., &c.

After some preliminary observations on the female constitution, and the predisposition to apoplexy, which certain circumstances connected with it, such as the cessation of the catamenia and the state of pregnancy, induce, Dr. Clarke states it as his opinion, that of the substances taken into the stomach, likely to occasion this morbid excitement of the cerebrum, none has a more powerful influence than "the shell-fish of the bivalve class."

In mentioning the general opinion of the vulgar, that mus-

tels are particularly poisonous, and that the poison chiefly resides in one part, which they are careful to pick out before eating them; the author observes, that "the fact that they do take out such a part, is sufficient to prove that this species of bivalve has been known to kill." Now it would have been sufficient only to have opened the work of the celebrated Brown, to have been convinced how much false judgment would exist, if facts of this description, founded on the vulgar errors of mankind, were to be adopted as evidence in philosophical inquiries. There is also no necessity of such evidence in support of the well-known fact, that eating mussels has produced death; but, it is now well understood, that this fatal effect does not depend on any particular poison inherent in the fish *. To return from this digression: Dr. Clarke details six cases of apoplexy occurring after child-birth, which he ascribes to the patients having eaten oysters. We extract the fifth; because it is shortly stated, and indicates the method of treatment which ought to be pursued in similar attacks.

"Mrs. H. a young woman of a very healthy constitution, had passed through the period of childbirth very well on former occasions, as well as that which preceded the present subject of consideration. She had been delivered of her child nearly a month, and had ceased to require any medical attendance. She had entirely left the chamber in which she was confined, and had returned to her ordinary modes of life.

"On waking one morning, she complained of pain in her head, but it was not sufficiently violent to confine her to her room. She therefore went into the drawing-room, where she was left in the afternoon with one of her children.

"Her husband was in a room underneath, and having heard something fall upon the floor with great violence, he concluded that the child had fallen on the ground; but on opening the door, he saw his wife lying on the ground senseless, convulsed, snorting, and foaming at the mouth. He immediately sent in great haste to the writer. When he arrived, the convulsion had ceased, but she was lying in a comatose state. Bleeding from the orifice of a large vein, purging, blistering, and low living, at length succeeded in removing the pressing symptoms, and she at length recovered; but for a long time she continued to be liable to pains in the head. These were moderated by keeping the head shaved, and often wetted with a lotion composed of spirit, æther, and water, applied cold to the scalp. This always afforded temporary relief. Of late years she has enjoyed very good health, and has been the mother of several children since that time.

"On investigating the cause of this attack, it appeared, that on

* In support of this opinion, we refer our readers to Mr. Burrows's Observations on Fish-Poison. Vide *Repository*, vol. iv. p. 445.

the day before, she had indulged in eating oysters. She had in all other points adhered to a very simple and regular diet, and no other circumstance had occurred, to which the disease could be attributed. Comparing this with the cases above related, little doubt can exist in the mind of the reader (it is conceived), that the affection of the brain was produced by the oysters, which had been eaten on the preceding day."—pp. 129, 131.

The following are the conclusions drawn by Dr. Clarke from the consideration of his cases:

"That the state of pregnancy not only induces such a flow of blood to the head, as to dispose it to be violently affected by the strong exertions of labour, so as to induce puerperal convulsions; but also to render it liable to be particularly acted upon for some time after childbirth, by sympathy with the stomach, when indigestible substances, especially the fishes of the bivalve class, have been eaten."—p. 133.

It remains however to be proved, that oysters are indigestible substances; and although the diseased state described in Dr. Clarke's cases was apparently the consequence of eating them, yet the evidence is not strictly demonstrative; and we know many instances of oysters having been eaten by women in a similar state, without producing any unfavourable effect. It is requisite not to be too precipitate in assigning deleterious effects to causes not palpably obvious; and although the subject certainly deserves attention, yet it requires to be more closely investigated before we can admit, as correct, the inferences of our author.

The ninth, tenth, and eleventh papers are from the pen of Dr. Baillie. The first is "*Upon a Case of* Stricture of the Rectum," not owing to any thickening or diseased structure of the coats of the gut, but produced by a spasmodic contraction of the internal and external sphincter of the anus. The following are the diagnostic symptoms by which this species of stricture is distinguished from the common stricture of the rectum:

"In the common stricture of the rectum, the situation of the stricture is generally two or three inches above the outer sphincter, and there is a sound capacious portion of the bowel between the stricture and this sphincter. At the seat of the stricture, the coats of the rectum are felt to be more or less thickened, and not uncommonly, in the cavity of the stricture, there is a hard irregular ulcer. Although this disease has in its early stages little influence upon the constitution, yet when it has made a further progress, the powers of the constitution become very much weakened, great emaciation generally takes place, and the patient is destroyed. In the other species of stricture, produced by a contraction of the sphincters of the anus, the contraction is found upon examination to be at the anus, or the very lower extremity of the rectum, the inner membrane

of the rectum is discovered to be sound, and the general health is not impaired."—p. 141—142.

This species of stricture occurs very rarely. It may be relieved by the introduction of a bougie; but the only means employed in the case under consideration, was "keeping the bowels free from costiveness, and pursuing a very temperate mode of living."

The second paper by Dr. Baillie consists of "*Some Observations respecting the* Green Jaundice."

However incongruous the etymology of this term may appear, it is not more so than that of *black jaundice*, the name "by which this disease has been often distinguished." It is of less frequent occurrence than the ordinary or yellow jaundice, attacks more generally men and those advanced in life, and is less connected with intemperance. The liver in some one part is often enlarged, hard, and tuberculated; and is tender when pressed, although the disease is seldom attended with pain. Dropsy, also, is a less frequent attendant. The pulse is commonly natural; the stools often pale, "but occasionally turgid with bile;" and the urine, although loaded with bile, yet seldom deposits a pinky sediment, as in yellow jaundice. In many cases the digestive organs are scarcely impaired; but, nevertheless, the patients rarely recover, although life may linger for some years under the pressure of the disease. The author observes that mercury and neutral salts have occasionally appeared to have been of some advantage; but of all the cases he has seen, two only recovered. He conceives there is some chemical difference in the state of the bile in green and yellow jaundice; and imagines that the ascertaining the nature of this difference might suggest some improvement in the mode of treating the green jaundice. "We may," he adds, "be said at present to be, in a great measure, ignorant of the proper method of treating this formidable disease."

The third paper of Dr. Baillie describes "*A particular Species of Purging*," which he has found to be almost constantly fatal. The matter evacuated smells sour; resembles "in its appearance a mixture of water and lime, and is generally very frothy on its surface." It occurs more commonly in men than in women, chiefly in those who have been in warm climates, and have suffered from affections of the liver. The countenance is sallow, but the body is not much emaciated; the pulse is nearly at the healthy standard; and, although the tongue is furred, there is no aphthous appearance in the mouth.

The plan pursued by Dr. Baillie was to give small doses of mercury; as for instance, half a grain of calomel, three or four grains of the pilula hydrargyri, or a few grains of the hydrar-

gyrus cum creta, every night or second; with some light bitter during the day.

The eleventh paper, by Dr. MATON, contains "*Some Account of a Rash liable to be mistaken* for Scarlatina." This eruption certainly was neither scarlatina nor roseola; but, judging from the description, it bore some resemblance to that species of rubeola designated by Willan *Rubeola sine catarrho.* It was contagious, and passed through a whole family; but the attack in every instance was mild, and scarcely required any medical treatment.

The fourteenth paper, which is also by Dr. MATON, details a "*Case of* Chorea, *in an aged Person, cured by Musk.*" This case was attended with extreme nervous irritability, which was greatly increased by evacuants of any kind. Various tonics and antispasmodics, including *argenti nitras*, were therefore tried; but none yielded any relief until musk was exhibited in doses of ten grains once in six hours. The good effects of the musk became almost immediately apparent; and in a week the disease was removed. Two subsequent attacks were relieved by the same means.

The seventeenth paper, "*Remarks on* Palpitations, *and on* Epilepsy," by Dr. T. YOUNG, is one of considerable interest. The object of this paper is chiefly to explain the connection between some kinds of palpitations, and dropsy of the chest and pericardium. Dr. Young prefaces two cases in proof of this, by observing, that a fluid is capable of transmitting an agitation of any kind to a more or less remote part of the body: a fact which is, in a limited degree, illustrated by the "common test of fluctuation, where the impulse of a slight blow, on one side of a cavity, is speedily and directly transmitted to the other side, and sometimes repeated by a kind of reflection:" and "an effect nearly similar is observable when the water surrounds, instead of being contained in, the cavity:" as when, for example, the body is immersed in a bath.

In the first of the cases detailed,

"a palpitation was observed in the right hypochondriac region, and on the right side of the neck, which exhibited a vibratory motion, more rapid and less regular, &c."—pp. 260—263.

The second was nearly similar. But besides these, two cases of epilepsy, corroborative of the powerful influence of *oleum terebinthinæ rectificatum*, are subjoined.

The 25th and 26th papers are on "*The* Fever *which prevailed at Cambridge during the Spring of* 1815." The one is by Mr. J. HAVILAND, and the other by Dr. RICHARD HARRISON.

Both these papers, as we have already noticed in our Retrospect of Medical Science, prove the contagious nature of this

fever; the head in particular appears to have been much affected; and hence blood-letting was properly and successfully employed. We extract the account of the appearances on dissection of the first of Mr. Haviland's cases.

"On removing the calvarium, the vessels of the dura mater appeared distended with blood, the other vessels of the brain were fuller than natural; between the dura and pia mater, there was a large quantity of fluid, besides which much more had escaped and run upon the floor, in consequence of the saw having passed through the membranes previous to the disengagement of the calvarium.

"The medullary substance of the brain contained many blotches of blood. The lateral ventricles were very much distended with fluid. The gall-bladder was found empty. The stomach and intestines were much distended with flatus. The thorax was not examined."—p. 405.

Such are the principal papers contained in this volume. Our limits prevent us from entering particularly into the examination of the remainder; we shall therefore merely notice their titles; and the same time observing that the two papers of Dr. Yeats especially deserve attention.

XV.—*A Case of* Natural Small Pox, *occurring several years after inoculation with variolous matter; in consequence of the progress of the inoculated pustules being interrupted.* By Mr. MILLINGTON.

XVIII.—*Extracts from a paper on* Phthisis, *by the late* M. ORBAN, *Surgeon in the French Navy. Translated from the French by the Registrar.*

This paper is intended to propose a new mode of treating phthisis, which the author learnt from a Moor at Tunis. The following are his remedies:

"The drink consisted of rain water ℥xlij, white wine vinegar ℥vj, refined sugar ℥ij: the dose was ℥iv, of which he took nine during the day, with one of the following pills to each; the remaining part of the drink was taken during the night, made warm. The formula of the pills:

"℞. Acidi benzoici ʒss, Aluminis, Ferri sulphatis, Acaciæ gummi, ana ʒj, Fuliginis pugillum.

"These were to be levigated with a little water on a marble, and divided into seventy pills."—p. 280.

Nine of the pills were taken, at nearly equal intervals, in the course of a day. No rationale of the practice is attempted; but Mr. Orban pursued it with success for nearly twenty years, adhering to the directions of the Moor, except that the sulphas ferri was omitted in his pills.

XX.—*Case of* Puerperal Fever, *in the which the uterus and*

*spleen were principally affected.* By HUGH LEY, M.D. *Physician-Accoucheur to the Westminster Lying-in Hospital.*

This paper is well written, and affords an instance, which, although not new, is undoubtedly of very rare occurrence, the inflammation of two organs, so distant from each other as the uterus and spleen, evidently arising from the same remote cause. The dissection, in particular, is extremely interesting.

XXIV.—*Facts exemplifying the efficacy of the* Cow Pox, *in preventing and mitigating the malignancy of the natural Small Pox.* By GEORGE SANDEMAN, M.D. &c. &c.

XXVII.—*The History of a Case of* Purpura Hæmorrhagica. By G. D. YEATS, M.D. &c. &c.

The most curious circumstance connected with this case was the coagulated state of the menstrual discharge. We are rather surprized the writer did not employ blood-letting, which, from the beneficial effects that have been found to result from it, we have long conceived to be the most rational mode of treating this species of purpura. It was treated altogether on the tonic plan.

XXVIII.—*History of a Case of* Somnambulism. By G. D. YEATS, M.D. &c.

The affection seemed, as is probably the case of every similar instance, dependent on a derangement of the digestive organs.

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# *PART III.*

## SELECTIONS.

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*On the Manufacture of Sulphuric Acid.*—WHEN the formation of sulphuric acid by combustion in leaden chambers was completely established by Dr. Roebuck, little or no improvement was made in the manufacture for many years. However, in the year 1788, a memorable era in the history of the trade of this country, when the new method of bleaching by oxymuriatic acid was introduced, the sale of sulphuric acid was much increased, especially in some particular districts. From this time the demand became enormous, and almost unlimited in extent; so that, from this single and unexpected circumstance, the manufacturers of this acid found it necessary to erect cham-

bers of much larger extent for the combustion of the sulphur; and these have been enlarged again and again by the great makers, so that now a common rate manufactory for sulphuric acid is really an establishment of serious concern, in respect to capital and magnitude.

The size of the leaden chambers in modern use is from 20 feet long and 12 feet wide, to 40 or 60 feet long and 16 or 18 feet wide*. One manufacturer, however, in Lancashire has a leaden chamber of the enormous dimensions of 120 by 40 feet, and 20 feet high, consequently forming a space of 96,000 cubic feet. It is impossible, indeed, to say to what extent the enlargement of these vessels may not be carried by the opulent manufacturers, who seem to set no bounds to their expenditure, especially as we are at present in possession of no facts by which it is possible to determine which is the best form, or what is the best size of a house† for the manufacture of sulphuric acid.

The process, however, whatever may be the size of the chambers, is generally conducted similarly, and in this way. A quantity of common brimstone, coarsely ground, is carefully mixed with crude saltpetre‡ in the proportion of seven or eight pounds of the former to one pound of the latter; and this mixture is afterwards divided into separate charges, containing quantities proportioned to the size of the chamber in which they are intended to be burnt.

The best method for apportioning this mixture appears to me to be this: to allow one pound for every 300 cubical feet of atmospheric air contained within the chamber; that is, if a house be an oblong square of 40 feet by 15 feet, and 15 feet high, the contents in cubic feet will be 9,000, and such a chamber will take 30 pounds of the mixture at each charge.

The mixture of sulphur and nitre is usually spread upon several plates either of iron or of lead; and these are afterwards placed upon stands of lead within the chamber, at some distance

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* Chaptal, who was a scientific manufacturer of sulphuric acid, says, "Those chambers which are about twenty feet broad by twenty-five long and fifteen high, seem to me to be of the most advantageous proportions."—*Chemistry applied to the Arts*, vol. iii. p. 40.

† *House* is a technical name for these leaden chambers. In some districts they are called leaden vessels.

‡ I never heard of *refined* nitre being used for this purpose; and yet many of the manufacturers of sulphuric acid instruct their brokers to purchase only such lots for them, at the sales of the East India Company, as have a small refraction, as it is termed, and are consequently esteemed to be of superior quality.

from each other, and a foot or two above the surface of the water. Things being thus arranged, the sulphur is lighted by means of a hot iron, and the doors are then closed.

If well mixed, the brimstone and nitre will soon be in rapid combustion, which will continue for 20 or 30 minutes, during which the chamber will become entirely filled with gas.

Three hours, calculating from the time of lighting, are generally allowed for the condensation of this gas; and then it is customary to throw open the doors for three quarters of an hour or an hour, for the free admission of atmospheric air and the expulsion of all the incondensable gas, in order that the house may be thoroughly sweetened, as it is called, for the next burning.

During this interval the plates are again charged, and preparation is made for a fresh combustion, which is thus repeated every four hours, day and night, without intermission, till the water at the bottom of the chamber is thought to be sufficiently acidified*, when it is drawn off, by means of a syphon, into a reservoir of lead, conveniently placed for its reception, and the floor of the chamber replenished with water for another making.

Whatever number of leaden chambers a manufactory may consist of, it is customary to work them all in this way, day and night, without interruption: for, as it requires a large sum in the first instance to form a sulphuric acid establishment, the operation being tedious, the return slow, and the product very small compared with the capital, the interest of money must be a heavy charge on the trade; and this is a constant spur to the manufacturer, making him anxious to get as large a produce as possible from each chamber.

When the acid has been drawn from the house, it is pumped from the reservoir into a large leaden boiler, which is usually an oblong square, and there it is heated till a copious vapour arises from its surface, when the operator ceases to increase the fire; still, however, keeping the liquor steaming day and night, till it has acquired that exact specific gravity, at which he considers it to be most economical to stay the process.

Where a proper attention is paid to the saving of labour, another reservoir is provided, which is placed contiguous to the

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* Some manufacturers make it a rule to remove the acid out of the chamber when it begins to turn black; and this, I think, generally happens when it is of a specific gravity between that of 1,350 and 1,450; though I suspect that most of the makers suffer it to remain until it acquire a specific gravity of at least 1,560.

boiler, and into this the concentrated acid is syphoned, where it is preserved, closely covered from the action of the atmosphere, till it is convenient to remove it to the rectifying house. There it is boiled in retorts of glass, till the remainder of the sulphurous and nitrous gas is driven off, and the acid has acquired the usual concentration for sale.

To explain why these different operations are necessary for procuring sulphuric acid in its highest state of concentration, it may be remarked, that whenever the acid in the leaden chambers has acquired a certain specific gravity, it will refuse to absorb the gas with the same avidity as at first; therefore, in order to conduct the process economically, the acid liquor must then be removed, and water poured in to supply its place.

It is equally necessary, when in the boiler, to draw it off before it becomes too much concentrated; for the boiling point of sulphuric acid always increases with the increase of its specific gravity; and its boiling point is so very near to that at which lead melts*, that there would be great danger of the metal giving way, were an attempt made to concentrate the acid beyond a certain point in such utensils; to say nothing of the loss of that portion of acid which would be decomposed by the metal, and of the impurity which the remaining acid would acquire from the large quantity of lead that would be then dissolved.

Some manufacturers are, indeed, so curious in the quality of the article, that they never steam it in lead at all, but remove it at once from the chamber of combustion to the retorts of glass. This is, doubtless, the best way of conducting the manufacture; for acid thus prepared can contain but a very minute portion of lead, it having no opportunity of acting very sensibly upon that metal†.—*Parkes' Chemical Essays.*

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* According to Irving, lead melts at 594 of Fahrenheit; and Dalton states that the concentrated sulphuric acid of commerce of the specific gravity of 1,848 boils at 590°; but if the specific gravity amount to 1,849, it will require a heat of 650° to bring it to the state of ebullition.

† The sulphuric acid of commerce always contains a portion of lead, and sometimes a small quantity of the sulphate of potash. Whenever sulphuric acid is required to be pure for chemical experiments, or medicinal purposes, distilled water shold be added to some of the common acid of the shops, till these impurities are all precipitated; and, if necessary, the water might then be abstracted by evaporation in a glass vessel.

# PART IV.

## FOREIGN MEDICAL SCIENCE AND LITERATURE.

### PHYSIOLOGY AND PRACTICE OF MEDICINE.

I.—The French Institute having appointed *MM. Cuvier, de Humboldt, Pinel,* and *Percy,* to examine a Memoir, *on the action of the Œsophagus,* read by *M. Majendie* at the sitting of the 11th of October 1813, the following is an abstract of their report.

"The examination of the physiological and anatomical labours of M. Majendie having been confided to these commissioners, it was at their suggestion that that indefatigable experimentalist, after having finished his memoir on the action of vomiting, undertook to examine the œsophagus, an organ which has been too little studied and very imperfectly described, although its functions are of the most important nature. It was merely known that this membrano-muscular canal was contractile, and that the exertion of this property during deglutition carried the aliments, whether solid or liquid, towards the stomach, and introduced them into this viscus. Haller stated, as the result of direct experiments, that it was endowed with irritability; and an old anatomist, whose work has been quoted and analysed by Portal (*Histoire de l'Anatomie, &c.*), had correctly asserted, that the œsophagus was susceptible of a vermicular motion, more or less sensible, according to the emptiness or fulness of the stomach; but little attention was paid to this opinion, which was reserved to be again conceived and confirmed by *M. Majendie,* by the most incontestible proofs. Another observation on the œsophagus as curious and important, made some years ago by *M. Soemmerring,* has been confirmed by *M. Rullier* of the Faculty of Medicine of Paris, the colleague and rival of M. Majendie; and is not likely to be forgotten like the former, or to require to be discovered a second time, as it is now well known to anatomists. It relates to the inferior or cardiac orifice, which presents an irregular denticulated line, owing to the mucous membrane of the œsophagus terminating suddenly at that part, and forming upon the internal surface of the villous membrane of the stomach a projection of a remarkable thickness; and the two membranes forming which, from their nature and texture being extremely different, may be separated without rupture, although the first, which becomes thin and

after as it descends towards the stomach, adheres strongly by a lamellar, dense, and compact tissue to the second, which appears to be extended from above to below, in a degree more or less stretched. This singular organization, which proves, that between the stomach and œsophagus there is a want of continuity, and even a real isolation between the mucous membrane of the one and the villous membrane of the other, may be regarded as supporting the proofs upon which may be established the real differences which separate the continuous parts of the mucous membrane, according to the particular organs to which they belong: and on account of this phenomenon alone, the œsophagus has become, in a physiological point of view, one of the most interesting parts of the human body.

"But M. *Majendie* has considered the subject differently, and his experimental researches having had another aim, they have also a merit of a different description.

"Our author, believing that he had not been anticipated in his attempts to ascertain the action of the œsophagus in vomiting, regarded his subject as entirely new; and therefore conceived that it was proper to examine that canal in a state nearly approximating to rest. He observed that the œsophagus has an alternate contraction and relaxation similar to the peristaltic or vermicular motion of the intestines. But he is convinced that this movement does not affect the whole of the organ, and scarcely extends beyond the lower third of its length, which is exactly the portion surrounded by the plexus or the eighth pair of nerves.

"This singular local action of the œsophagus extends to where it is united with the stomach, and the contraction usually continues about half a minute; during which period the canal is tense and hard like a moistened rope; after which it again becomes soft and even flaccid. Sometimes this relaxation is sudden and at once, from the simultaneous giving way of all the fibres; sometimes it proceeds successively, commencing from above. Nothing of this kind occurs when the nerves of the eighth pair are divided.

"When the stomach is distended with food or by any other cause, the œsophagus contracts with much greater energy, and may remain more than ten minutes in this state. The relaxation is then of such very short duration, that it is scarcely possible the substance contained in the stomach can return into the œsophagus. Compressing the stomach with considerable force is insufficient to effect this during the contraction; but the pressure serves only to increase the constriction of the canal.

"In the experiments which M. Majendie made upon living animals, a considerable quantity of tepid water having

been injected at once into the stomach through the pylorus, some of it passed into the œsophagus. Some also passed after a moderate injection. It is probable that the weight of the liquid forced the orifice of the œsophagus. When the stomach was exposed, and filled beyond its natural size, nothing passed into the œsophagus on account of its increased and prolonged contraction excited by the excessive distension.

"More generally, some of the fluid passes into the œsophagus, which, suddenly contracting, returns it into the stomach. This is a species of deglutition, the mechanism of which resembles the natural function. It is sometimes rejected by the mouth.

"These observations, and a series of others equally interesting, have enabled M. *Majendie* to explain many actions of life, which have been hitherto little understood; such as eructation, regurgitation, and rumination, as it occurs in men, &c. &c.

"M. *Majendie*, in acknowledging that *Haller*, his master and model, had described with correctness the action of the circular fibres of the œsophagus in deglutition, remarks, that the prolonged movement of the lower third, for a longer or shorter time after the introduction of food or drink into the stomach, had escaped the discerning eye of that philosophical physiologist, who also had not seen the mucous membrane of the cardiac extremity, pursed up by the contraction of the muscular fibres, and forming a projection in the cavity of the stomach.

"In prosecuting his experiments upon animals, M. *Majendie* cut through the œsophagus, in many instances both at its neck and at different heights, within the cavity of the thorax; and having injected into the veins or introduced into the stomach some tartar emetic, vomiting was excited. When he touched it at its attachment to the diaphragm, the animals did not vomit.

"More than two-thirds of the length of the œsophagus being cut away, but without injuring in any great degree the plexus of the eighth pair of nerves, vomiting was produced; a fact which cannot be questioned, and of which several of us have been eye witnesses."

"The abdomen of some large dogs having been opened, the œsophagus was detached from the diaphragm, and tied at its insertion into the stomach, the nervous plexus remaining free and untouched. It was then cut above the ligature, and altogether removed. The abdomen being again sewed up, on injecting a powerful dose of tartar emetic into the veins, no efforts at vomiting took place; whilst it constantly occurred under the same circumstances, when the tartar emetic was introduced into the stomach.

"In many similar experiments, when the cut œsopha-

gus was left in its place, the immediate contact of the emetic substance with the stomach was required to excite vomiting. This was also necessary in some instances in which the œsophagus was tied only, but not cut; but in a number of others, the injection of it into the veins excited all the efforts which precede vomiting; and M. Majendie has remarked that during their continuance, the air which would have entered into the stomach being stopped by the ligature, distended the œsophagus, which re-acted upon it, and expelled it upwards, where meeting another column of air, taken in by a renewal of the nausea, it produced by its collision a peculiar noise, and this continued as long as the ineffectual efforts of the animal to vomit.

"These experiments do not present any thing very conclusive regarding the real influence of the œsophagus in vomiting; but they throw some light upon a question, which had not even suggested itself to physiologists.

"In recapitulation, the commissioners observe that M. *Majendie* has ascertained that the lower third part of the œsophagus is in a state of constant contraction and relaxation, dependent upon the plexus of the eighth pair of nerves; that this portion of the œsophagus remains for some time contracted after solid food or drink is thrown into the stomach, and the duration and intensity of this contraction is in a direct ratio with the fulness of the stomach, and may be excited by the mechanical compression of that viscus; that vomiting may be induced independent of the œsophagus, or in an animal from which that canal has been removed, if the tartar emetic be thrown into the stomach, whilst that substance injected into a vein does not produce that effect.

"The Reporters proceed to observe, that M. Majendie reserves his observations on the part which the œsophagus, from its connection with the diaphragm, performs in the action of vomiting, for the subject of another memoir; in which he means to determine, by a series of experiments, the exact influence which the œsophagus exerts in that operation."

II.—Dr. *Gastellier*, of Paris, has published a *Case of Spontaneous Perforation of the Stomach*, with observations, of which the following is an extract*:

"Professor *Chaussier* having observed several of these perforations, has availed himself of them in elucidation of legal medicine, and to warn professional men from ascribing these accidents to poison. The case which came under the care of Dr. *Gastellier* confirms the opinion of that celebrated physiologist.

"A young lady, after having passed a summer evening in

* Gazette de Santé, 11 Decembre 1815.

singing in a garden, fell into a profound sleep, until she was awoke about three in the morning by very violent pains in the stomach. Several soothing remedies were administered, but without the slightest advantage; and at seven, when M. *Gastellier* arrived, he perceived all the signs of death, which took place at ten o'clock.

"The body was juridically examined. On opening the abdomen, the seeds of gooseberries, and even some of the fruit entire, were seen scattered here and there over the viscera of the lower part; and indicated the nature of the injury which had taken place. The stomach was full of food, and presented at the middle and anterior part of its greater curvature two round holes, such as might have been made by a musket-bullet, but the interior edges of which only were thin and livid. There was no other mark of injury; and nothing which indicated the presence of any poisonous substance."

III.—Having witnessed the effects of the *Extract of Belladonna* in allaying the cough attendant on the epidemic catarrh which lately prevailed in one district of the metropolis, we are induced to translate the following observations of Dr. Meglin, of *Colmar*, on the employment of the *root* of Belladonna in *Hooping-cough**.

"During the treatment of several cases of hooping-cough, I had an opportunity of practically proving the correctness of the assertion of Drs. Schaeffe, Wetzler, and other distinguished practitioners, that the root of Belladonna is one of the most efficacious remedies in this convulsive cough. In the commencement of the disease I gave my little patients two or three ipecacuanha emetics, at intervals of one or two days; and continued the same remedy for a few days longer in smaller doses as a sudorific. I then exhibited the powdered root of Belladonna according to the method of Wetzler, viz. to children under one year of age I gave a quarter of a grain of the powdered root, combined with twenty grains of sugar, every morning and evening; and to those under two years, a quarter of a grain more in the twenty-four hours. To children from two to three years of age, I gave a grain in twenty-four hours in two doses; and to those from four to six years of age, a grain and a half. The dose was increased every two or three days until the increase equalled half the first dose. The largest dose for a child of one year and under was one grain, and three grains for the oldest. By pursuing this practice, a great diminution in the force, violence, frequency, and duration of the accessions

* *Bibliothèque Medicale, Mai* 1815, p. 207.

of this vexatious cough was soon perceptible; and the disease ceased entirely in much less time than by any other method of treatment. Towards the termination of the complaint, when the lungs are in a great degree free from disease, I exhibit decoction of cinchona, which confirms the cure. On account of the great efficacy of the root of Belladonna in hooping-cough, I have laid aside the use of the meadow narcissus (*narcissus poeticus*), which has been much extolled by Dufresnoi and others, and which I had sometimes successfully employed."

SURGERY.

IV.—*Observations upon a particular case of Castration*, by M. H. Cloquet, D.M.P. Physician to the Faculty of Medicine of Paris.

"A young man twenty-six years of age, of a strong robust constitution, who had never had any venereal disease, and was afflicted with an inguinal hernia on the left side from his infancy, required my advice on account of a hard, embossed, heavy, ovate tumour in the interior of the scrotum. It was compressed inwardly, larger than the fist, separated from the inguinal ring by a very apparent interval, and gave the sensation of a dull fluctuation. This affection had commenced ten years before, but at first increased slowly; and only in the three last years made any rapid progress. Several surgeons and physicians were consulted; who all agreed that it was a sarcocele; and that the operation should be performed, provided there was no alteration in the cord, that the tumour was indolent, and the patient otherwise enjoyed good health.

"The excision of the part affected being determined upon, the patient was laid upon the side of his bed; and by the sole effect of position, the hernia, which was rather small, was spontaneously reduced. An able surgeon performed the operation, but of which I will give the details, on account of the consequences it presented.

"As the skin of the scrotum was healthy, not adhering, and perfectly moveable upon the tumour, it was completely laid open by means of a longitudinal incision, which extended from the top of the inguinal ring to the lower part of the scrotum. The cellular tissue of the dartos was detached in the usual manner; and a ligature passed round the spermatic cord, which was then cut through; no contraction took place in the remaining part; finally, the tumour, completely isolated, was taken out of the membranous bag which contained it.

"But during the section of the cord, the hernial sac which adhered to it was opened: and when it was cut through, the

spermatic artery was seen to be so much branched, that it was necessary to embrace the whole cord in a general ligature, on account of the impossibility of tying up the branches separately.

"The bottom of the wound was filled with lint powdered over with resin; the parts surrounded with compresses, and the whole adjusted with an inguinal bandage.

"Immediately after the dressing, an hæmorrhage took place; extreme weakness followed; violent vomitings came on, and succeeded each other with rapidity; at the same time sharp pains were felt on the sides of the neck. A mixture of the extracts of bark and opium was given, and remained on the stomach, but without allaying the vomiting. The hæmorrhage was successfully suppressed by accumulating compresses of lint upon the wound.

"In the evening, we found great tension of the abdomen; frequent eructations; the pulse small and hurried; skin cold; continual vomitings: antispasmodics were given without effect.

"A glyster with an addition of syrup of white poppies was not returned.

"Next morning.—The patient in the same state; the tension of the abdomen was increased; and every medicine brought up directly after being administered; the skin however was not so cold as on the preceding evening.

"Third day.—Continuation of the vomiting had exhausted the patient, and resisted every remedy, except some spoonfuls of white wine, which allayed it for a few moments; the mind was restless and uneasy ever since the operation; and violent colics were added to the other symptoms. Emollients were applied on the exterior, narcotics and soothing medicines given without effect. All the ligatures were taken off in the morning, fearing they might be the cause of the nervous symptoms, and no hæmorrhage took place.

"The patient was in the same state, the beginning of the fourth day; at five in the morning there was a slight amendment; at ten the face contracted, the skin was cold and discoloured; the weakness excessive; and death took place, at three in the afternoon, without confusion in the intellectual faculties.

"On examining the body, a slight degree of peritoneal inflammation was observed; the intestines were covered with a thin layer of albumen, and adhered to one another; but, what is remarkable, the cavity of the abdomen contained more than a pint of black blood, mingled with little clots, which were even seen in the hypochondriac regions, under the liver, and round the spleen; the pelvis in particular was entirely filled with it.

"After having dissected the tumour, it was found that it did not at all adhere to the testicle, which was perfectly healthy; but it dis-

placed the epidedymis at the expence of which it appeared to have been formed; it was a true cyst, whose fibro-cartilaginous parietes were of a line and a half in the thickness, and enclosed a reddish albuminous fluid, and pultaceous matter of a red brown colour, similar to the scum which would be formed by boiling blood in water. A kind of a false, brownish coloured membrane lined the whole interior of this cyst, except at the place corresponding to the corpus Hymorianum, where several whitish ulcerated points were observed.

"Such is the fact I present to the Society, and am ignorant whether any thing similar has been ever published. I will reduce it to its most simple definition.

"1. A tumour formed in the scrotum at the expense of the epidedymis, of a size more considerable than that of the first, and, although the testicle remained healthy, rendered necessary the excision of that organ.

"2. A mortal effusion of blood took place into the abdomen in consequence of an accident attending the operation of castration."

## CHEMISTRY AND PHARMACY.

V.—The following notice on *Uric Acid* has been published by M. *Gay Lussac:*

"Two years ago I suggested to M. Chevruel the employment of the oxide of copper in the analysis of animal and vegetable substances, and proposed to him to use an apparatus which I had employed in analysing some substances, for which the apparatus described by Thenard and myself in our Physico-chemical Researches could not be employed. I had endeavoured to analyse the uric acid by means of oxide of copper, and ascertained that its composition, relatively as to carbon and hydrogen, had some correspondence with that of cyanogen; but before publishing the result of a single experiment, I conceived it to be requisite to verify it.

"For this purpose I mixed intimately some uric acid with about twenty times its weight of oxide of copper, and having introduced it into an iron tube closed at one extremity, filled up the remaining portion of the tube with copper filings. I then first heated the part containing the filings to an obscure red heat, and afterwards brought the mixture to the same temperature. The elastic fluid which was disengaged was collected upon mercury. It was nearly inodorous; and rendered the solution of barytes with which it was washed, turbid, at the

* *Journal de Pharmacie,* October 1815, p. 433.

same time losing 0·69 of carbonic acid: the remaining 0·31 parts were azote. The relation of these numbers are nearly as 2 to 1, and the difference would be scarcely any thing, if there was not also formed a little subcarbonate of ammonia, which was dissolved in the water that was condensed in the tube. The complete analysis of uric acid would require more time than I can devote to it, and I may venture to assert, that in uric acid the volume of carbon is to that of azote in the relation of 2 to 1 as in cyanogen.

VI.—*Observations on the existence of Urate of Ammonia in the Excrement of the Moth of the Silk-worm, and the analysis of the white (dragée* ou *blanc) of that insect*;* by Professor Brugnatelli.

"The author has received from Count Dandolo some silk-worms converted into *dragée* ou *blanc*, and a considerable quantity of the reddish substance voided by the moths of these worms as they leave the exuvia of the crysalis and come out of their cocons.

"This substance has a reddish colour, an earthy aspect, and a peculiar odour resembling that of the cocon of the silk-worm. It had no very remarkable taste, but it was not insipid.

"It is insoluble in water at 25°†, and in alcohol; and renders colourless the tincture of litmus in the same manner as chlorine.

"The addition of caustic potass evolved a strong odour of ammonia; and the fluid being diluted with water and then filtered, yielded a precipitate of uric acid, when treated with hydrochloric acid. The residue contained a sub-phosphate of lime and magnesia, and some sub-carbonate of lime.

"When thrown upon hot coals, an odour of burning animal matter was exhaled.

"Calcined in a platinum crucible, it left, in the form of powder, a carbonaceous residue, which, when treated with caustic potass, acquired a black colour. The fluid, when filtered, was yellow, and the residue contained the same substances which have been already mentioned.

"Concentrated nitric acid produced a brisk effervescence with the disengagement of white fumes; the solution assumed a blood hue, and coloured the hands pale yellow; which in a

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* Our translation is made from the Annales de Chimie, t. lxxxvi. p. 55; into which the paper has been transcribed from the *Journal de Physique et de Chimie* of Brugnatelli. We have lately received a very flattering epistle from Professor Brugnatelli; and have taken measures to obtain his Journal regularly as it appears.

† The thermometer employed is not mentioned.

short space of time changed to the most brilliant scarlet*, like uric acid obtained from urinary calculi.

"The reddish substance, then, which the moths of silk-worms void, contains a large proportion of urate of ammonia, sub-phosphate of lime and magnesia, and sub-carbonate of lime united by an animal cement.

"The author advances the opinion that the *guano* discovered by Humboldt may be produced from the excrements of a great number of insects.

"The property of urate of ammonia in discolouring the tincture of litmus is remarkable, but it is not rare among animal substances; for it has been long known that the muscles of beef, and the extract and the infusion of muscular flesh, membranes, and tendons, also deprive that tincture of colour.

"The author has also examined the white substance into which silk-worms change, when they harden at a certain period of life, and which is commonly called *dragée* ou *blanc*. He treated the hardened substance which covered the nymphæ with distilled vinegar: the fluid yielded no precipitate when tested with oxalic acid, or with oxalate of ammonia; but caustic potass evolved ammonia from the *dragée*.

"Sulphuric acid partially dissolved it, and was precipitated by potass. The insoluble portion contained much animal matter; for when thrown upon hot coals it exhaled a strong animal odour, and in distillation furnished the same results. The residue contained sub-phosphate of lime.

"The author concludes, from his different experiments upon this substance, that it is formed of ammoniaco-magnesian phosphate, a small portion of urate of ammonia, and some animal matter; but that it does not contain any *bombic acid*, which is formed in the healthy nymphæ only of the silk-worm, when the change to the moth is nearly completed, and which has a great affinity with acetic acid."

VII.—A Pharmaceutical Reform has lately been projected in France, and many of the articles formerly in use in that country have been expunged from what is termed the *Codex*. Among those which have been retained is the *oil of eggs*, on the nature and properties of which several interesting observations have been published: we extract those of *M. L. A. Planche*, as the most detailed, and containing the substance of all the others†.

After some remarks on a paper of M. Henry, our author

* The author conceives that the colour of the skin produced by this solution depended in the perspiration; for pieces of cloth dipped into it did not acquire the scarlet colour, unless they were placed in contact with the skin, when they soon acquired it.

† *Journal de Pharmacie, Octobre* 1815, p. 433.

thus arranges his subject: "I shall consider, 1st, the nature of the oil obtained by expression from the yolks of boiled eggs; 2d, the oil as it exists in the yolks of fresh eggs; and endeavour to prove, that in both instances it is a compound of a fluid oil, and a concrete substance resembling suet.—3d. I shall describe the alteration which occurs in oil of eggs when kept; point out the method of preventing that, or retarding it for a certain time; and finally the advantages which result in employing it for the preparation of mercurial ointment.

"*Of the Oil expressed from the Yolks of boiled Eggs.*—The custom of depurating oils by rest, led me to regard the deposit which is formed in oil of eggs, exposed to a mean temperature, such as is common in Apothecaries shops, as the result of a spontaneous depuration. Morelet and others regard it as a mucous matter which passes with the oil during its expression. Without, however, exactly adopting this opinion, I have always regarded this substance as foreign to oil of eggs, and would probably have neglected the examination of it, if I had not observed that it was also formed in the oil which had been filtered warm, and very limpid, as well as in that which remains unfiltered.

"Well prepared oil of eggs passes wholly through the filter, in a temperature of from 25° to 30° Reaum. The filtered oil is of a beautiful orange yellow colour, and is very limpid. It begins to deposite in the course of two or three days a flocculent matter, frequently opaque and of a citrin colour, but at other times in needles which cross each other in various directions, or in small quadrangular plates lying one over another, and deposited on the sides of the bottle. If it be prepared in winter, or exposed to a temperature of from 4 to 6° above 0, almost the whole of the oil becomes a granulated mass, in which some crystals may often be observed; and if the whole be now placed on a filter, the fluid oil runs through, and does not again congeal at that temperature; while the matter remaining in the filter is distributed in thin layers through several folds of bibulous paper which imbibes the free fluid oil.

"This is the method I employed about three years ago, when I made my first experiments upon oil of eggs, but did not think of adopting the mode of expression which M. *Braconnot* has ingeniously employed in his experiments upon fat substances. I had already examined the substance deposited in the oil of eggs, and was acquainted with its principal properties, but never obtained it entirely free from the fluid oil by subjecting it to pressure.

"*Of the properties of the concrete part of the Oil of Eggs.* 1. This substance when well expressed, does not stain bibulous paper (papier joseph).—2. It resembles yellow wax that has been kneaded in cold water; but its parts are less cohesive.—3. It retains slightly the odour of yolk of egg.—4. It begins

to melt between 36 and 38° Reaum; but is not completely fluid under 45°; after cooling it acquires the consistence of mutton suet.—5. Sulphuric ether at 65° (Baumé) dissolves it without the assistance of heat.—6. This solution exposed to the air until the ether is entirely evaporated, leaves on the sides of the evaporating dish, a circle formed by the concrete substance of a yellow colour, in the centre of which the same colourless substance is observed devoid of colour. To obtain it pure and inodorous, it is requisite only to expose the latter to a gentle heat.—7. Alcohol of 40° when cold has little effect upon this species of suet. When boiling it dissolves 1.25; more than half of which is precipitated in white flakes as the liquor cools. —8. This substance, heated with a solution of pure soda, forms soap as readily as mutton suet; which it seems to resemble more than any of the fat substances.

"A hundred parts of Oil of Eggs yield of

Oil ..... 91 parts.
Suet ..... 9 ——

"From the suet of the egg crystallizing in the fluid oil, I was led to consider it as a substance analagous to spermaceti; but I soon abandoned this opinion, having discovered that this suet when purified by fusion, loses its property of crystallizing.

"*Of the Oil of Eggs separated from the Suet.*—1. The oil of eggs, deprived of its suet, in point of fluidity, at the medium temperature of the atmosphere, holds a situation between olive and linseed oil.—2. At zero it becomes a solid mass, but does not crystallize.—3. At 4° above zero it resumes its ordinary fluidity.—4. It is soluble in every proportion in sulphuric ether, as has been proved by M. Henry.—5. Cold alcohol does not dissolve more than $\frac{1}{350}$ of its weight of this oil. This solution becomes milky on the addition of water.—6. When warm, it does not dissolve above $\frac{1}{150}$; but the alcohol acquires a yellow colour. This effect is very conspicuous when equal parts of the liquids are employed. It is probable that the oil of eggs might be completely deprived of its colour by repeating this experiment several times.—7. Oil of eggs divides mercury extremely well, as we shall afterwards prove.—8. Two parts of this oil, and one of soap-maker's, being triturated together in a glass mortar, form a homogeneous soap, of a buff-yellow colour and a good consistence.—9. This soap is readily dissolved in water.—10. Muriatic acid, dropped into this solution, separates from it a fat, colourless substance, of the consistence of grease.

"*Of the Oil of Eggs obtained from the Yolk of a raw fresh Egg.*—Being desirous to ascertain whether there existed any difference between the oil we have been just examining and that which is contained in the yolk of a raw egg, I imagined that, as sulphuric ether is the solvent of the fluid oil and the

suet, without acting upon the albumen, I should be able to separate their ingredients without the intervention of caloric: and with this view the following experiments were made.

"*First Experiment.*—The yolks of four fresh eggs were put into a flask with twice their weight of good ether, and well shaken together: in the course of an hour, the ether appeared clear, of a fine yellow colour, and floating over a slightly coloured deposit.

"*Second Experiment.*—One part of this ether was poured off into a large tube, containing ten parts of distilled water, and the two liquids were mixed by agitation. The ether combined with the water, and the oil separated into filiform floculi: I then plunged the tube, uncorked, into warm water, in order to evaporate the ether, and to melt the oil. A heat of 45° was necessary to attain both these purposes. The oil, on being poured out, partly congealed on cooling.

"*Third Experiment.*—The remainder of the solution, after the evaporation of the ether, left the oil of eggs partly fluid and partly concrete. Obtained by this method, which certainly is not the best, it has a very agreeable bland taste; but the ether must be of the greatest purity.

"A hundred parts of this oil consist of

Oil..... 88 parts
Suet..... 11 ——

"Thence it follows that the oil obtained by the medium of ether contains 00·2 parts more of suet than that procured by the aid of caloric. But we cannot reasonably conclude that the oil contained in eggs that have been cooked differs essentially from the oil of raw eggs. It appears to me that, by the ordinary method, towards the conclusion of the experiment the mass becomes cold, and is capable of dissolving the same quantity of suet. Moreover, the experiments which I have made with both kinds of oil of eggs have not presented any remarkable difference; therefore I have no hesitation in concluding they are identical.

"*Of the Change which keeping produces on the Oil of Eggs, and the Means of retarding it.*—The changes which oils are liable to undergo can be appreciated only by comparing their properties in different circumstances and at different times. Taste and smell, which are commonly sufficient to distinguish the goodness of fixed oil, inform us also when the oil of eggs becomes rancid; but we have no means of perceiving the intermediate degrees of alteration which take place. This oil retains for a longer or shorter period of time its colour and agreeable taste, according to the height to which the bottle is filled. As long as it possesses these two qualities, we regard it as a good article, notwithstanding its having already undergone some change. This change, although not sensible to our organs, yet

is very evident when the oil is triturated with mercury. I have already mentioned that it divides this metal extremely well; and I have to add, that this property increases in the oil of eggs by keeping, by the contact of air, and in an increased temperature."

In proof of this opinion, the author has detailed five experiments; which, we conceive, it is unnecessary to transcribe.

"*Of the Utility of Oil of Eggs in the Preparation of Mercurial Ointment.*—I do not mean to describe the methods of preparing this ointment; but merely to recommend the use of the oil of eggs as a preparatory aid: and it is from constant experience of its utility that I confidently recommend it: but I must allow others to determine whether it merits the encomiums I bestow on it.

"*Formula for making Mercurial Ointment.* — Take of oil of eggs, which has been kept for three months in a temperature of from 15 to 16° Reaum. in a bottle only half filled and corked,.....ʒiss.

Purified mercury.....℥viij.
Prepared lard.....℥vij.
Fresh beef suet.....℥i.

Melt the suet and the lard together, and allow the mixture to cool. Rub the mercury with the oil in a marble mortar with a wooden pestle, until the globules no longer re-unite; then add an ounce of the fatty mixture, and continue the trituration until all the globules disappear; after which, the remainder of the fat may be added.

"The operation requires an hour to complete it; but the time may be reduced to half that period, if double the quantity of oil of eggs be employed. For a new operation, it is useful to leave an ounce of the ointment in the mortar."

# PART V.

# MEDICAL AND PHYSICAL INTELLIGENCE.

## I.—SOCIETIES AND LECTURES.

LECTURE II.—*On the Vegetable Acids employed in Pharmacy.* By Professor BRANDE, at Apothecaries' Hall, London.

THE preparations of the Pharmacopœia which now strictly come under our notice, are the acids, the alcalies and their salts, the earths and their salts, and the metals and their salts. They are placed in the order which I have here set them down; and although upon many of the articles included under these heads, I shall have little

to say, I propose, for reasons mentioned in my last Lecture, to retain the general order of the arrangement.

The *acids* employed in medicine, according to our Pharmacopœia, are the acetic, the benzoic, the citric, the muriatic, the nitric, and sulphuric.

The term *acetic acid* has been improperly applied to the distilled vinegar, which no more merits that title, than a very weak and dilute sulphuric acid deserves to be called oil of vitriol. The two cases are very similar. Acetic acid is a caustic corrosive fluid, which irritates and excoriates; and, if ever employed by mistake as distilled vinegar, would give rise to very awkward, if not dangerous effects. There may perhaps be little danger of such occurrence here; but an English prescription, in which "acidum aceticum" formed an ingredient, if sent to a foreign apothecary's, would certainly be made up with the strong caustic acid to which I have just alluded, instead of the mild and innocuous acid intended by our College.

Vinegar is prepared from malt liquors, or mucilaginous and amylaceous infusions, or from wine. These are exposed for a certain time to a warm atmosphere in open vessels; oxygen is absorbed, and the fluid, before saccharine or vinous, soon sours in consequence of the production of vinegar. What is commonly called vinegar contains not merely the true acetic acid very largely mixed with water, but is coloured by extractive matter, and contaminated with some other vegetable acids, especially the tartaric and malic; it usually also contains a little alcohol. During distillation, little else passes over than the water, the acetic acid, and the alcohol. In distilling vinegar in the large way, it is with great difficulty and unnecessary expense that we follow the directions of the College in using glass vessels; a well tinned still with a tin worm answers as well, and is not acted upon by the acid. From 100 parts of vinegar we may distil over about 85 parts; of which the first 5 parts should be rejected as consisting of little else than alcohol and water. By the Pharmacopœia, 7 parts are directed to be distilled from 8; of which the first part is to be thrown away, so that 6 pints of distilled vinegar are obtained from a gallon of vinegar. Where the distillation is performed over the open fire, the matter in the still is apt to burn towards the latter part of the process, and the distilled liquor acquires a disagreeable smell and taste in consequence of empyreuma. Of this we here are in no danger, by the advantage of the application of steam to work our stills, to which I have before so repeatedly alluded. The specific gravity of this liquid is but little above that of water—about 1006 to 1008. A fluid ounce should decompose at least 14 grains of precipitated carbonate of lime, which should be used in experiments of this kind in preference to marble, which being of different states of induration gives rise to ever varying results. Distilled vinegar may be adulterated either with water or sulphuric acid, or it may accidentally contain lead or copper derived from the still. The quantity of chalk decomposed will be smaller considerably than that mentioned, if water be present. Sulphuric acid may be detected by acetate of barytes; lead by sulphuretted hydrogen; copper, by ammonia. In applying barytes as a test to discover sulphuric acid in undistilled vinegar, it must be recollected that tartaric and some other vegetable acids al-

ford insoluble precipitates with that earth. Distilled vinegar is always more or less contaminated by mucilage, which passes over during the distillation. Its presence may be shewn by saturating the acid with potash, and boiling; the liquor blackens, though none of the acid is decomposed: this blackening depends upon the decomposition of the mucilage.

Vinegar, either common or distilled, ranks among the refrigerants in the Materia Medica; and it has sometimes been found of use in counteracting the baneful effects of vegetable narcotics taken in over doses; it is said almost to annihilate the effects of ipecacuanha. The external application of vinegar is useful as a cooling lotion, as a discutient, and a mild irritant. It is useless as a destroyer of infectious matter, though sometimes erroneously employed for this purpose in hospitals and in the chambers of the sick.

To procure from distilled vinegar its real or radical acid in an undiluted and pure state, a variety of methods have been devised. As this acid is not in the Pharmacopœia, I shall not dwell at length upon the subject; but as it has already been found useful in practice, and promises to become more so, a short digression upon the subject will not be misplaced.

Vinegar may be considerably concentrated by simple exposure to cold; the water then freezes in preference to the acid, and much of it may thus be got rid of in the shape of ice. The specific gravity of distilled vinegar may thus be raised from 1006 to 1030. It acquires a more pungent smell, and a more acid or acrid flavour. But the most effectual method of obtaining *acetic acid*, for such we may justly call it when freed from water, is to pour distilled vinegar upon subcarbonate of potash, evaporate to dryness, and distil the dry mass with sulphuric acid. In this process, the true acid of the distilled vinegar unites to the potash, and is afterwards displaced by the superior affinity of sulphuric acid for the potash. The combinations of acetic acid with oxide of copper, commonly called crystallized verdigris, and acetate, or sugar of lead, may also be decomposed by a similar operation. The true acetic acid is a highly pungent acrid fluid, and extremely volatile. Its specific gravity is 1040; its vapour is inflammable: when largely diluted with water it resembles distilled vinegar deprived of mucilage. In medicine it is most powerfully stimulant; it irritates, inflames, and excoriates; and has been successfully applied to the removal of warts. When scented with aromatics, it is much used as a reviving smelling bottle.

There is yet another source whence vinegar may be abundantly obtained, and at a cheap rate. I allude to the destructive distillation of wood, as performed upon a large scale by the burners of charcoal for the manufacture of gunpowder. That vinegar is thus produced was first observed by Glauber, towards the end of the 17th century; he details the discovery in the first part of his "Miraculum Mundi," and directs its use wherever common vinegar is employed. He was also aware of its being stronger than usual vinegar, as appears from the following singular quotation: "We are informed," says he, "that Hannibal made a passage through the Alps for himself and his army, softening the rocks by the benefit of vinegar. What vinegar that was, histories do not mention; perhaps it was the vinegar of wir

but if he had had the vinegar of wood, he would sooner have attained his desire."

By destructive distillation acetic acid is resolved into carbon, hydrogen, oxygen. It contains more oxygen than any of the other vegetable acids.

*Benzoic acid.* This useless inert acid is still needlessly retained in the Pharmacopœia. The most economical mode of procuring it is to distil benzoin in an earthen retort, till its bottom becomes red hot. The products are water, oil, and acid, besides some gaseous matter, and there remains in the retort a brittle brilliant coal. These products yield two parts of acid in 16.

The process directed in the Pharmacopœia was first devised by Scheele. A benzoate of lime is produced by boiling the earth and balsam in water, which is afterwards decomposed by muriatic acid. The lime however not only unites to the acid of benzoes, but dissolves no inconsiderable portion of the resin, which is precipitated along with the acid, by the muriatic acid; and which, in subsequently subliming the acid, contaminates it. I obtained about 1 ounce and 7 drachms from a pound of benzoes by this process.

The *benzoic acid*, when pure, is in white feathery crystals of little smell, and having a slightly acrid flavour; 1 part is soluble in 25 of boiling water. It is probably possessed of no important medical properties, and seems merely retained in the Pharmacopœia as a component of the old paregoric elixir, or tinctura camphoræ compos. where it is quite unavailing, opium being its active ingredient.

*Citric acid.* I have several observations to make upon the method of preparing this acid directed in the Pharmacopœia; as also upon the observations added upon the subject in the translation, which would in many respects, if relied on, lead the operator into error.

The method of obtaining the concrete vegetable acids by processes similar to that here recorded, was first devised by Scheele, and has since been very generally adopted; but many minutiæ must be attended to in order to obtain the best results, which nothing but practice can suggest.

The requisite quantity of chalk and of dilute sulphuric acid entirely depends upon the quality of the juice, which is ever varying; and it is therefore quite useless, as well as improper, to set down any given proportions, as in the Pharmacopœia; where, although we are permitted to add as much chalk as may saturate the juice, we are not told to modify the proportion of sulphuric acid accordingly.

Lemon and lime juice are used indiscriminately for the preparation of this acid, as imported from the Mediterranean. The pure juice, besides citric acid and water, contains some malic acid, and abounds in mucilage; it should have a fresh acid taste, and should not be musty or insipid; its specific gravity should be between 1030 and 1060. It may be adulterated with water and with sulphuric acid: the former may be detected by its inferior specific gravity, and the latter by the addition of acetate of lead, which yields a precipitate insoluble in dilute nitric acid. Should the juice have been adulterated with muriatic acid, add to it an acid solution of nitrate of silver, which will in that case furnish a precipitate insoluble in nitric acid. The citrate of lead and of silver are both soluble in dilute nitric acid.

Having learned the *purity* of the acid, its *strength* may be ascertained by its saturating power; 16 parts of the pure acid will saturate 20 parts of dry subcarbonate of potash; and with the knowledge of this fact, it is easy to ascertain the *quantity of real acid* in a given quantity of any lemon juice.

The method by which I have best succeeded in getting citric acid is as follows; using the heat of steam throughout all the processes with a view of preventing burning, by which much of the acid is discoloured or even destroyed.

1. Boil the lemon juice for 5 minutes, and set it aside for 48 hours in a cool place, and then filter it through a fine linen bag.

By this operation a considerable portion of mucilage is got rid of.

2. Having previously discovered by experiments upon a small scale, the quantity of chalk required for its saturation (if the juice is good, 1 gallon = ℔ss.), put this in fine powder into a wooden vessel capable of holding twice the quantity of liquid, and having carefully noted its weight, mix it into a thin paste, with a small quantity of juice, and gradually add the remainder during constant stirring, and guarding against running over by effervescence.

3. Allow the citrate of lime thus formed to subside, and wash it repeatedly with large portions of warm water, in order to remove, as much as possible, the adhering mucilage; then mix in a tub a quantity of oil of vitriol and water, in the proportion of 9 parts of concentrated acid, specific gravity 1·8, to every 10 parts of chalk previously used, and dilute this in the proportion of a gallon of water to every pound of acid. Having thus prepared the diluted acid, when cold stir into it by small portions the citrate of lime yet moist, and occasionally agitate the mixture for half an hour at a time, during the six or eight hours which they should remain together.

4. Pour off the clear supernatant liquor, and wash the precipitate with cold water till it comes off tasteless; add the washings to the liquor, and evaporate it in a steam or water bath at a temperature, not exceeding 212° to one fourth its original bulk; set it aside to cool, when much sulphate of lime will fall; evaporate again to the consistence of thin honey, or till a pelicle begins to form, and on cooling, a crop of crystals of citric acid will be produced; continue the evaporation and exposure of the mother liquors, as long as crystals can be obtained, and then put them aside. The first crops of crystals are brown, small, and irregular, and mixed with sulphate of lime: dissolve them in twice their weight of hot water, containing about one-eighth their weight of animal charcoal; and boil for a quarter of an hour, then filter, first through paper, and afterwards through chamois leather. This will separate much of the colour, and nearly all the sulphate of lime; and one or two solutions more, with a little of the charcoal if necessary, will afford white and proper crystals. If the lime juice be good, it is said that twenty gallons will yield 18 ℔s. of dry citrate of lime, which will afford 10 ℔s. of good citric acid. I have however rarely procured half a pound of acid from a gallon of the juice, and generally not more than 6 to 7 ounces.

Citrate of lime has occasionally been prepared in Sicily, and sold in our market for the purposes of decomposition; but the necessary

exportation of chalk and other difficulties attending this plan, have induced its ingenious authors to discontinue it.

Some very useful directions concerning the preparation of citric acid have been published by Mr. Parkes in his "Chemical Essays."

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APOTHECARIES' HALL. — THE COURT OF EXAMINERS OF THE SOCIETY OF APOTHECARIES are extremely anxious to impress upon those persons who may be intending to present themselves for examination, a conviction of the absolute necessity of such knowledge of the Latin language as may enable them to translate the Pharmacopœia Londinensis, and prescriptions of Physicians, which they consider as a qualification indispensable to the Apothecary.

They are particularly induced to give greater publicity to this regulation, because they have had the distressing duty imposed upon them of withholding Certificates of Qualification from several persons, principally from their great deficiency in this most important pre-requisite to a medical education.

*January 19th,* 1816. JOHN WATSON, *Secretary.*

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*A List of the* CERTIFICATED APOTHECARIES, *who have passed since November the 1st,* 1815.

Mr. W. LAXON, *London*
Mr. J. C. BURROW, *London*
Mr. J. DIXON, *Newcastle-on-Tyne*
Mr. W. KENT, *Upton-upon-Severn*
Mr. H. RONALDS, *Brentford*
Mr. JAMES HERON
Mr. WILLIAM MACNAB
Mr. G. COOPER, *Brentford*
Mr. J. HUNTINGDON WHARRIE
Mr. W. HILLMAN, *London*
Mr. C. SYLVESTER, *Swansea*
Mr. WILLIAM JONES, *Harbury*
Mr. FRANCIS COLE

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ROYAL SOCIETY.—Nov. 30, the Society proceeded to the choice of a Council and Officers for the ensuing year, when, on examining the lists, it appeared that the following gentlemen were elected :—

*Of the Old Council.*—The Right Hon. Sir Joseph Banks, Bart. K. G. C. B., Sir Charles Blagden, Knight, Samuel Goodenough, Lord Bishop of Carlisle, Taylor Combe, Esq., Davies Giddy, Esq. M. P. Sir Everard Home, Bart., Samuel Lysons, Esq., George, Earl of Morton, K. T., John Pond, Esq., William Hyde Wollaston, M. D., Thomas Young, M. D.

*Of the New Council.*—John Barrow, Esq., Mark Beaufoy, Esq., Henry Browne, Esq., Sir Humphrey Davy, Knight, Philip, Earl of Hardwicke, K. G., Edward Howard, Esq. John Latham, M. D. Pres. Coll. Phys., Thomas James Mathias, Esq., Sir John Nichol, Knt. M. P., George, Earl of Winchilsea, K. G.

*Officers.*—President, the Right Hon. Sir Joseph Banks, Bart. K. G. C. B.—Treasurer, Samuel Lysons, Esq.—Secretaries, Wm. Hyde Wollaston, M. D., and Taylor Combe, Esq.

After the election the Members of the Society dined together, as usual, at the Crown and Anchor Tavern in the Strand.

At a Meeting of the Subscribers for establishing "The Medical Benevolent Society" for the relief of Medical Men, who, either from age or adversity, shall require it; held at the *Freemason's Tavern, London,* January the 29th, 1816; Dr. Latham, President of the Royal College of Physicians, in the Chair:

It was Resolved,

That as it appears that the time allowed for receiving the Names of Subscribers has not been sufficient for Gentlemen resident in the country to declare their intentions, therefore the Books for that purpose shall remain open at Messrs. Child, Bankers, Temple Bar, and at this Tavern, till February the 24th.

That until the 20th of March next, Benefactions and Subscriptions will be received by any of the Treasurers; viz. Dr. Clutterbuck, New Bridge Street; Richard Ogle, Esq. Great Russell Street, Bloomsbury; and Henry Field, Esq. Christ's Hospital; or by Messrs. Child, the Bankers.

J. LATHAM, Chairman.

Several distinguished characters in the Profession, among whom Dr. Hull of Manchester was conspicuous, sent liberal benefactions; and many Subscribers entered their Names on the Books: Society therefore commences under the happiest auspices.

*** *The Payments to be made to the Annuitant Fund from 50 to 60 years of age, are now calculated, and are*

| AGE. | SINGLE PAYMENT. | | ANNUAL PAYMENT. | | AGE. | SINGLE PAYMENT. | | ANNUAL PAYMENT. | |
|---|---|---|---|---|---|---|---|---|---|
| | £. | s | £. | s. | | £. | s. | £. | s. |
| 51 | 209 | 7 | 26 | 12 | 56 | 165 | 18 | 21 | 14 |
| 52 | 200 | 17 | 25 | 14 | 57 | 156 | 19 | 20 | 12 |
| 53 | 192 | 4 | 24 | 14 | 58 | 148 | 0 | 19 | 12 |
| 54 | 183 | 11 | 23 | 14 | 59 | 138 | 19 | 18 | 10 |
| 55 | 174 | 14 | 22 | 14 | 60 | 129 | 18 | 17 | 10 |

*List of Officers for the Medical Benevolent Society.*

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*Vice-President,* Henry Cline, Esq.

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* *Two more Trustees will be appointed.*

## II.—MEDICAL.

*Vaccination in Germany.*—We insert the following article, rather as a proof how ignorant they are in Germany of the real history of Vaccination, than with any feeling that such a circumstance, allowing it full credit, can in the least shake the reputation of Dr. Jenner. Neither Dr. Jenner himself, nor any other well-informed person in England, laid claim to the knowledge of the anti-variolous powers of the cow-pox as a new discovery. In particular districts, its prophylactic effect was a traditional report; and the great merit of Jenner was, the patient investigation of the grounds for an opinion so extraordinary and contrary to all received doctrines; for the collection and collation of the facts he met with relative to the subject; for the long course of experiments he prosecuted before he arrived at so happy a result; and, finally, for the firm yet temperate zeal he displayed, in establishing the correctness of his inferences and practice.

The rash act of *Plett* was the mere effusion of a meddling pedagogue, who, from the same sort of experience or information, would have attempted any sort of hazardous experiment.

In the first Number, for 1815, of the *Sleswig Blatter*, a Holstein provincial paper, there is, under the head of "*Where was the Cow-Pox first inoculated?*" an account, of which the following is an abridgment. It is considered in Germany as perfectly authentic; and upon it claims are founded of the discovery of the anti-variolous effects of the vaccine virus by inoculation, before it was known in England.

"In 1790 Mr. *Plett*, now schoolmaster at Stackendorff, in the parish of Schonberg, near Kiel, was a tutor to the family of Mr. Wiese, a grazier at Schonweide, at whose house the conversation with the neighbouring graziers frequently turned on the cow-pox. The mother-in-law of Mr. W. declared that she had had the cow-pox in her youth, and that she never was infected with the small-pox, although she had attended her children in that disorder. Several of the relations and some of the female servants had experienced the same protection; and the conviction among the country people was to the same effect. Nobody doubted it; and *Plett*, from all he had heard, was firmly persuaded of the cow-pox being a preventive from the small-pox. In 1791, *Plett* left Wiese's, and was engaged in the same capacity by Mr. Martini, farmer at Hassleberg. Amongst his pupils were two girls of eleven and twelve years of age; neither of whom had had the small-pox, of which they were much afraid. At this time it happened that the milk-maids had the cow-pox, which they had received from the cows; and at this they had expressed great pleasure. Two of Martini's daughters went to the cow-house, and rubbed themselves with the pocks then on the cows; but without any effect. *Plett* had seen small-pox inoculated, not long before, at Prectz. He now asked his pupils if they would like to be inoculated with the cow-pox; and told them that he knew how to inoculate, and would make a trial without the knowledge of their parents, who were much prejudiced against variolous inoculation.

"Two of the daughters, Hedwig and Margaret, and one of the

sons, Charles, accepted the offer. *Plett* then examined the cows, and the pocks on their teats; and, finding a cow on whom the pustules appeared ripe, he opened one with his pen-knife, collected the issuing lymph upon a piece of wood, and returned to his room. He then made an incision between the thumb and fore-finger of each pupil, as he had seen done at Preetz, and rubbed the lymph on the fresh wounds. Three days after, an inflammation took place, and red spots were perceived; and soon after the cow-pox appeared with a red periphery. The disease went on; the children continued well; and in about a fortnight all was safely over.

"In the year 1793, *Plett* left this place, and went to the seminary of Schoolmasters at Kiel. Here, one day in 1794 or 1795, he accidentally met Mr. Martini; who told him, that since he left him, his family had been seized with the small-pox, which had been very malignant; but he learnt, to his inexpressible joy, that the children he had vaccinated escaped all infection."

*Sedum Acre.*—*Dr. Peters* of Anclam, (Vide *Hufeland's Journal* for May 1815,) bestows great commendation upon the efficacy of the *Sedum Acre* in cases of epilepsy; to which Dr. *Peters'* father first directed his attention, and which had been previously confirmed by the observations of Mr. *Zschorn*, Surgeon of Bauske, in Courland.

In the case of a female aged thirty, and pregnant, and to another female aged forty, of a cachectic habit, and much weakened by a long continued intermittent fever, and who had been subject to epileptic fits fifteen years, which were first induced by a violent fright, the *Sedum Acre* was administered with the greatest success. He gave ten grains of the powder of it night and morning, to the amount of forty doses to each. They afterwards continued free from any attack for four months; the latter patient had then two slight fits, when he gave to the extent of half an ounce more of, what Dr. P. calls, this Specific; and she has continued since perfectly well. Dr. *Peters* has prescribed it for children with great advantage, to the amount of eight grains twice a day.

*State of Medical Science among the Calmucks.*—According to Mr. Neitz, who lived among the Calmucks for several years, and was well acquainted with the Mongole language, Medicine and Surgery are (as with us) two separate professions. A Surgeon is called *Otto tschi;* a Physician *Emt tschi.* Their specifics consist chiefly of aromatic substances: two sorts of mirobalani, arrorae and tharrorae, with musk, are universal remedies, which are frequently used in dissimilar maladies. Besides this, they have bezoar, rose leaves, malvac, enula helenium, safran, &c. The seed of ricinus communis they employ as a laxative. In gonorrhæa and venereal diseases, they employ the fumigations of Cinnaber, which are also in use among the Russians; and internally nux vomica. The last and most excellent of all their remedies, which is administered only when all others have failed, and which, according to the assertion of the Calmuck Physicians is dearer than gold, is called *charakoiki.* According to the opinion of the Mongols, it is a rare species of bitumen, produced on the highest rocks in the hottest regions of the east. Mr. *Stacklin*

takes it to be gummi bdellium. There is also a kind of religious universal remedy in great repute among them: viz. the remains of burnt saints, carefully collected from the ashes; and this is given in very dangerous sicknesses.

Dr. *Tourtel* of Munster recommends from experience, camphor ʒi dissolved in spirit. sulphuric. æther. ℥i. ol. cajeputi ʒij. as very efficacious—1. In rheumatic and gouty affections, head-aches thence arising; in vertigos and similar affections, in rheumatic tooth-aches, in catarrhal head-aches, or in catarrhs, as a cephalic.—2. In hysteric head-aches and cramps.—3. In local weaknesses of the head caused by too frequent evacuations, and great mental exertion. He is also of opinion that this remedy might be serviceable in tic doloureux.

III.—SURGICAL.

*Carotid Aneurism.*—On the third of last month (Jan.), the common trunk of the left carotid, immediately as it emerges above the clavicle, was tied in the case of a man with aneurism of that artery of very large dimensions, by Mr. Coates, Sen. Surgeon to the Salisbury General Infirmary. One ligature only was used, which separated on the 18th day. The tumour has already (Jan. 25) diminished to a fourth of its original size, and the patient is rapidly recovering.

IV.—PHYSIOLOGICAL.

*Hydrocephalic Preparations.*—In the Anatomical Museum at Berlin, is a preparation of a fœtus of 4 months, of which the skull and the occiput are swelled up into a large almost transparent *hydatis*, and perfectly representing a small hydrocephalus. Another equally remarkable preparation, is that of an acephalic fœtus of 4 months, in the possession of Professor Jorg, at Leipzig, in which a piece of the skin is folded towards the face; other parts are lying compressed on the occiput, and partly forming a bladder, so that the whole perfectly appears, as if the bladder, filled with water as in the hydrocephalus at Berlin, had but lately burst, and the remaining skin, like an empty bag, was firmly adhering to the bottom. These facts considered, says our correspondent, one can hardly help being of Rudolphi's and Mekel's opinion, that a *status hydrocephalicus* of the head very probably precedes the acephalus in the first months of the animation of the fœtus.

V.—MISCELLANEOUS.

THE "Bill for Enlarging the CHARTER of the ROYAL COLLEGE of SURGEONS *in London*, and for making further Provisions for the better Practice of Surgeons, and for preventing *Men* from practising Midwifery who shall not be Members of the said College," is prepared, and will be immediately brought into Parliament. It is in form and effect the same as the Bill withdrawn during the last Session, when it had reached the House of Peers. Of course we shall give a copy or copious abstract of it in the next REPOSITORY.

Died, recently, Sir CHARLES BLICKE, Kt. Surgeon to St. Bartholomew's Hospital.—Mr. VINCENT has succeeded him as Surgeon, and Mr. EDWARD STANLEY is elected Assistant Surgeon.

VI.—NOTICES OF LECTURES.

ROYAL COLLEGE OF SURGEONS.—The first part of the Course on Human Anatomy and Surgery commenced Jan. 25, ult. The Lectures will be continued every Monday and Thursday at three o'clock.

ROYAL INSTITUTION.—A Course of Lectures and Demonstrations on Chemistry will commence in the Laboratory of the Royal Institution, by Professor BRANDE, on the first Tuesday in February, at nine in the morning, and be continued every Tuesday, Thursday, and Saturday.—Two Courses are given during the season, which begins in October and terminates in May.—The subjects comprehended in the Courses are treated of in the following order:—*Division* I. "Of the Powers and Properties of Matter, and the General Laws of Chemical Changes."—*Division* II. "Of Undecompounded Substances and their Mutual Combinations."—*Division* III. "Vegetable Chemistry."—*Division* IV. "Chemistry of the Animal Kingdom."—*Division* V. "Geology."—Particulars may be obtained by applying to Mr. Brande, or to Mr. Fincher, at the Institution, Albemarle-St.

MEDICAL, CHIRURGICAL, AND CHEMICAL SCHOOLS; *George Street, Hanover Square; and Medical Theatre, No. 42, Great Windmill Street.*—The Spring Courses of Lectures will commence on Monday Feb. 5th.—1. On the Laws of the Animal Œconomy and Practice of Physic, by G. PEARSON, M. D. F. R. S.—2. On Therapeutics, with Materia Medica and Medical Jurisprudence, by Dr. Pearson, and W. T. Brande, F. R. S. Prof. Royal Inst.—3. On Chemistry, by Professor Brande.—4. On the Theory and Practice of Surgery, by B. C. BRODIE, F. R. S.—Sir EVERARD HOME's gratuitous Lectures on some of the operations of Surgery, given to the Pupils of St. George's Hospital, will be delivered at the Theatre, 42, Windmill-street.—Further information may be had by applying at the Theatre.

DR. MERRIMAN will re-commence his Lectures on Midwifery, at the Middlesex Hospital on Thursday Feb. 8, at half past ten o'clock.

VII.—LITERARY WORKS IN AND PREPARING FOR THE PRESS.

Dr. G. E. Male, Physician to the Birmingham Hospital, has nearly ready for publication an Epitome of Judicial or Forensic Medicine.

Dr. Stewart, Lecturer on Midwifery in London is about to publish "Observations on Uterine Hemorrhage."

Dr. Granville has in the press, and nearly ready for publication, a translation of that part of M. *Orfila's* GENERAL TOXICOLOGY which more particularly relates to poisons derived from the vegetable and animal kingdoms. The subject having formed a very important part of Dr. Granville's scientific pursuits, he has been enabled to accompany his translation with copious notes and additions. The original has only been before the public a few days, and is not yet in general circulation.

Dr. Armstrong, of Sunderland, has in the press a work, intitled "Practical Illustrations of Febrile Diseases." The principal object of this work is to shew the great advantages of early and decided bloodletting and purging in typhus, in an affection called the common inflammatory fever, in the malignant forms of the scarlet fever, in hydrocephalus internus, in measles, in hooping cough, in erysipelas, in dysentery, and in other diseases. It will be illustrated with several cases and dissections.

# A METEOROLOGICAL TABLE,

## *From the 21st of Dec.* 1815, *to the 20th of January*, 1816,

### KEPT AT RICHMOND, YORKSHIRE.

230 Miles NW from London.

| D. | Barometer. Max. | | Barometer. Min. | | Therm. Max | Therm. Min. | Rain Gage. | Winds. | Weather. |
|---|---|---|---|---|---|---|---|---|---|
| 21 | 29 | 18 | 29 | 13 | 34 | 22 | Rain gage burst. | NW.. | 1S.. & Sh. of Sno 2 S... |
| 22 | 29 | 34 | 29 | 19 | 28 | 21 | | SE. | 1 S.. 2Mist..4Starlight... |
| 23 | 28 | 84 | 28 | 68 | 34 | 29 | | SE.SW.... | 1 Cy... 4 Starlight.. |
| 24 | 29 | 15 | 28 | 91 | 35 | 27 | | SW....W.. | 1 S... Sh. of Sn. 4 Starl.. |
| 25 | 29 | 37 | 29 | — | 28 | 22 | | W. | 1 S.... |
| 26 | 28 | 84 | 28 | 65 | 35 | 28 | | SE. | 1 Snow... 2 Cy... |
| 27 | 29 | 35 | 29 | 34 | 34 | 25 | | NW...W.. | 1 Sh. of Snow. 2 S.. |
| 28 | 29 | 34 | 29 | 34 | 38 | 30 | | SE..SW.. | 1 Cy.. |
| 29 | 29 | 81 | 29 | 14 | 43 | 38 | | SW...WSW | 1 Cy.. |
| 30 | 30 | 04 | 29 | 96 | 39 | 32 | | WNW. | 1 S... |
| 31 | 29 | 96 | 29 | 91 | 43 | 38 | | SW.. | 1 S. |
| 1 | 29 | 87 | 29 | 75 | 44 | 35 | | SW.. | 1 S... |
| 2 | 29 | 80 | 29 | 69 | 40 | 34 | | SW.. | 1 S.. 3 Cy.. 4 R. |
| 3 | 29 | 86 | 29 | 83 | 38 | 33 | | WNW.. | 1 S.... |
| 4 | 29 | 73 | 29 | 65 | 42 | 36 | | SW.. | 1 S.. 3 Cy.. |
| 5 | 29 | 56 | 29 | 29 | 45 | 40 | | WSW.. | 1 S... |
| 6 | 29 | 36 | 29 | 03 | 42 | 32 | | W.... | 1 S... 3 Sh. of R. 4 Mn... |
| 7 | 29 | 51 | 29 | 11 | 38 | 32 | | NW.. | 1 S.... 3 Cy.. |
| 8 | 28 | 96 | 28 | 86 | 44 | 38 | | SW..SW... | 1 S.. & Sh. of R. 4 mn... |
| 9 | 28 | 92 | 28 | 92 | 44 | 38 | | SW.. | 1 S... 4 Cy.. |
| 10 | 28 | 73 | 28 | 40 | 44 | 40 | 16 | WSW. SW.... | 1 S... 4 R.. |
| 11 | 28 | 94 | 28 | 75 | 43 | 36 | 11 | WSW... | 1 S.. and Sh. of R.. |
| 12 | 28 | 56 | 28 | 43 | 40 | 35 | 13 | W.. | 1 S. 2 R.. 4 Moons... |
| 13 | 28 | 88 | 28 | 58 | 38 | 32 | | SSW.. | 1 S. and Sh. of R. |
| 14 | 29 | 02 | 28 | 88 | 37 | 30 | | NW.. | 1 S.... |
| 15 | 28 | 99 | 28 | 80 | 36 | 32 | 09 | SE. | 1 Snow. 3 R. |
| 16 | 28 | 81 | 28 | 70 | 37 | 33 | | WSW..SE.. | 1 S.. 4 Snow. |
| 17 | 29 | 06 | 28 | 99 | 36 | 32 | | SW.... | 1 S. 3 Sh. of Snow.. |
| 18 | 29 | 23 | 29 | 19 | 36 | 27 | | SW.. | 1 S.. & Sh. of sn. 4 mn... |
| 19 | 29 | 23 | 29 | 08 | 32 | 27 | | SSE.. | 1 S. and Sh. of Snow. |
| 20 | 29 | 05 | 29 | — | 33 | 27 | | SW.SSE. | 1 S.. 3 Cy... |

## *Observations on Diseases at Richmond.*

The quantity of rain during the month of December is estimated at 2 inches 15-100ths. From the 16th to the 29th the frost was very severe in the nights, yet sometimes in the day the temperature rose high enough to melt part of the snow, which, after freezing in the rain gage, caused it to burst; therefore the quantity of rain must be inaccurate.

The most prevailing disease, and it may be considered epidemic, during this period, has been catarrhal fever, which, in many cases, was severe and tedious. Hooping Cough and Typhus continue; but neither disease spreads much. Cases of *Colica, Diarrhœa, Dyspepsia, Dysuria, Hæmoptisis, Otalgia,* and *Rheumatismus* have been under treatment.

# METEOROLOGICAL TABLE FOR LONDON,

*From the 20th of* **DECEMBER**, *to the 19th of* **JANUARY**, 1816,

By Messrs. HARRIS & Co.

*Mathematical Instrument Makers, 50, High Holborn.*

| M. | D. | Therm. | | | Barom. | | Rain Gauge | De Luc's Hygrom. Dry. | Damp. | Winds. | | Atmo. Variation. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 | 45 | 48 | 45 | $29^{2}$ | $29^{1}$ | | | 13 | 17 | SSW | SW | Clo. | ..... | ..... |
| | 21 | 37 | 40 | 34 | $29^{1}$ | $50^{5}$ | .15 | | 8 | 10 | SW | N | Clo. | ..... | ..... |
| | 22 | 32 | 37 | 36 | $29^{6}$ | | | | 4 | 5 | SW | ENE | Fog | Clo. | ..... |
| | 23 | 35 | 47 | 42 | $29^{7}$ | $80^{5}$ | | | 8 | 11 | SW | SW | Clo. | ..... | ..... |
| | 24 | 42 | 43 | 36 | $29^{3}$ | $99^{5}$ | .08 | | 13 | 10 | SW | SW | Clo. | Fine | Clo. |
| ◐ | 25 | 34 | 39 | 30 | $29^{5}$ | $07^{8}$ | | | 8 | 7 | W | SSW | Clo. | Fine | Clo. |
| | 26 | 38 | 43 | 44 | $29^{6}$ | 40 | | | 8 | 18 | S va | S va | Clo. | Fine | Clo. |
| | 27 | 34 | 38 | 32 | 29 | $20^{8}$ | | | 13 | 7 | W | WSW | Rain | Clo. | Fine |
| | 28 | 34 | 40 | 45 | $29^{9}$ | $16^{9}$ | | | 6 | 19 | SSW | SW | Snw | Clo. | ..... |
| | 29 | 48 | 50 | 49 | $29^{8}$ | $29^{9}$ | .22 | | 17 | 9 | SW | W va | Clo. | Fine | Clo. |
| | 30 | 35 | 43 | 37 | $30^{1}$ | $90^{5}$ | | | 9 | 7 | W va | SW | Fine | ..... | ..... |
| | 31 | 32 | 40 | 40 | $30^{5}$ | $60^{5}$ | | | 5 | 12 | S | SSW | Fog | Fine | ..... |
| ● | 1 | 38 | 45 | 38 | $29^{5}$ | $30^{4}$ | | | 10 | 10 | S | S | Clo. | Fine | ..... |
| | 2 | 31 | 38 | 30 | $30^{2}$ | | | | 8 | 10 | S | SW | Fog | Clo. | Fine |
| | 3 | 35 | 39 | 33 | 30 | $30^{5}$ | | | 10 | 10 | WNW | W | Clo. | Fine | ..... |
| | 4 | 22 | 38 | 37 | $30^{4}$ | $60^{5}$ | | | 9 | 12 | SW | WSW | Clo. | Fine | ..... |
| | 5 | 38 | 42 | 41 | $30^{2}$ | $50^{1}$ | | | 11 | 13 | WSW | SW | Clo. | ..... | Fine |
| | 6 | 46 | 54 | 45 | $29^{8}$ | $89^{8}$ | | | 23 | 10 | WSW | W | Clo. | ..... | Fine |
| | 7 | 40 | 41 | 39 | $29^{8}$ | $49^{5}$ | | | 5 | 5 | WNW | W | Fine | ..... | ..... |
| | 8 | 41 | 52 | 50 | $29^{7}$ | $09^{4}$ | .09 | | 7 | 20 | W | SW | Clo. | Rain | Clo. |
| ◑ | 9 | 48 | 50 | 48 | $29^{4}$ | | | | 15 | 15 | W | W | Clo. | ..... | Rain |
| | 10 | 46 | 45 | 46 | $29^{4}$ | $29^{4}$ | | | 13 | 12 | WSW | SW | Clo. | ..... | Rain |
| | 11 | 53 | 50 | 45 | 29 | $10^{2}$ | .08 | | 16 | 10 | W va | W va | Clo. | Fine | ..... |
| | 12 | 40 | 45 | 46 | $29^{5}$ | $09^{1}$ | .15 | | 7 | 10 | W va | SW | Clo. | Fine | ..... |
| | 13 | 42 | 45 | 39 | 29 | 39 | .09 | | 9 | 8 | SW | SW | Fine | Fine | ..... |
| | 14 | 40 | 45 | 40 | $29^{1}$ | $30^{4}$ | .11 | | 8 | 10 | SE | S | Clo. | Rain | Fine |
| | 15 | 39 | 41 | 41 | $29^{3}$ | | | | 8 | 10 | SSE | WSW | Clo. | Rain | Fine |
| ○ | 16 | 39 | 48 | 42 | $30^{5}$ | $29^{5}$ | .21 | | 8 | 9 | SW | S | Clo. | Clo. | Fine |
| | 17 | 42 | 40 | 38 | $29^{4}$ | $70^{5}$ | | | 10 | 8 | W | SW | Rain | Clo. | Fine |
| | 18 | 39 | 42 | 38 | 29 | $29^{5}$ | .32 | | 9 | 10 | S | S | Fine | ..... | Rain |
| | 19 | 38 | 43 | 42 | $29^{7}$ | $09^{6}$ | .04 | | 10 | 13 | S | S | Rain | ..... | Clo. |

*The quantity of Rain fallen is* 1 *inch* 7-100*ths.*

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## BILL OF MORTALITY *from December* 19, 1815, *to January* 16, 1816.

| | | Dec. 26. | Jan. 2. | Jan. 9. | Jan. 16. | |
|---|---|---|---|---|---|---|
| CHRISTENED. | Males | 162 | 244 | 212 | 307 | |
| | Females | 149 | 219 | 197 | 278 | |
| | | 311 | 463 | 409 | 585 | Total, 1768. |
| BURIED | Males | 155 | 213 | 229 | 248 | |
| | Females | 149 | 202 | 215 | 243 | |
| | | 304 | 415 | 444 | 491 | Total, 1654. |
| OF WHOM HAVE DIED | Under 2 Years | 79 | 120 | 114 | 125 | |
| | Betw. 2 and 5 | 28 | 39 | 37 | 54 | |
| | 5 and 10 | 15 | 22 | 16 | 17 | |
| | 10 and 20 | 8 | 12 | 12 | 13 | |
| | 20 and 30 | 19 | 29 | 36 | 35 | |
| | 30 and 40 | 27 | 44 | 48 | 39 | |
| | 40 and 50 | 36 | 38 | 49 | 49 | |
| | 50 and 60 | 32 | 41 | 46 | 53 | |
| | 60 and 70 | 29 | 32 | 42 | 42 | |
| | 70 and 80 | 16 | 23 | 22 | 36 | |
| | 80 and 90 | 12 | 14 | 16 | 23 | |
| | 90 and 100 | 3 | 1 | 6 | 5 | |
| SMALL POX | | 11 | 16 | 14 | 14 | |
| | Total of Small Pox | 56 | | | | |

## A REGISTER OF DISEASES

*Between* DECEMBER *20th*, 1815, *and* JANUARY *19th*, 1816.

| DISEASES. | Total. | Fatal. | DISEASES. | Total. | Fatal. |
|---|---|---|---|---|---|
| Abortio | 15 | | Eneuris | 6 | |
| Abscessio | 23 | | Enteritis | 8 | 1 |
| Acne | 5 | | Entrodynia | 13 | |
| Amaurosis | 2 | | Epilepsia | 10 | 1 |
| Amenorrhœa | 18 | | Epistaxis | 9 | |
| Amentia | 1 | | Erysipelas | 23 | 1 |
| Anasarca | 35 | 5 | Erythema *læve* | 1 | |
| Aneurisma | 2 | 2 | —— *papulatum* | 2 | |
| Angina Pectoris | 3 | 1 | —— *nodosum* | 1 | |
| Anorexia | 8 | | Exostosis | 1 | |
| Aphtha *lactentium* | 10 | | Febris *intermittent* | 12 | |
| Apoplexia | 6 | 4 | —— *catarrhalis* | 86 | 2 |
| Ascites | 9 | 2 | —— *Synocha* | 20 | |
| Asthenia | 31 | 2 | —— *Typhus mitior* | 15 | 1 |
| Asthma | 111 | 14 | —— *Typhus gravior* | 5 | 5 |
| Asphyxia | 1 | 1 | —— *Synochus* | 46 | |
| Atrophia | 10 | | —— *Puerpera* | 4 | 1 |
| Bronchitis *acuta* | 9 | 4 | —— *remit. Infant* | 18 | |
| —— *chronica* | 6 | 1 | Fistula | 8 | |
| Bronchocele | 2 | | Fungus | 1 | |
| Calculus | 1 | | Furunculus | 4 | |
| Caligo | 1 | | Gastritis | 5 | |
| Cancer | 7 | 2 | Gastrodynia | 25 | |
| Carbunculus | 2 | 1 | Gonorrhœa *pura* | 21 | |
| Cardialgia | 19 | | Hæmatemesis | 2 | |
| Carditis | 1 | 1 | Hæmaturia | 3 | |
| Catarrhus | 247 | | Hæmoptöe | 20 | 1 |
| Cephalalgia | 37 | | Hæmorrhois | 43 | |
| Cephalæa | 6 | | Hemiplegia | 14 | |
| Chlorosis | 24 | | Hepatalgia | 3 | |
| Cholera | 6 | | Hepatitis | 16 | 2 |
| Colica | 20 | | Hernia | 9 | |
| —— *Pictonum* | 4 | | Herpes *Zoster* | 6 | |
| Convulsio | 16 | 3 | —— *circinatus* | 1 | |
| Cynanche *Tonsillaris* | 52 | | —— *labialis* | 4 | |
| —— *maligna* | 5 | | —— *præputialis* | 3 | |
| —— *Trachealis* | 1 | | Hydrocele | 1 | |
| —— *Parotidea* | 7 | | Hydrocephalus | 7 | 4 |
| —— *Pharyngea* | 3 | | Hydrothorax | 5 | 4 |
| Diabetes | 1 | | Hypochondriasis | 8 | |
| Diarrhœa | 93 | 1 | Hysteralgia | 1 | |
| Dysecöea | 1 | | Hysteria | 16 | |
| Dysenteria | 16 | 3 | Ichthyosis | 1 | |
| Dyspepsia | 85 | | Icterus | 9 | |
| Dyspnœa | 36 | | Impetigo *figurata* | 3 | |
| Dysphagia | 1 | | —— *sparsa* | 1 | |
| Dystocia | 2 | | —— *erysipelatodes* | 2 | |
| Dysuria | 8 | | Ischias | 2 | |
| Ecthyma | 4 | | Ischuria | 12 | |
| Eczema | 1 | | Lepra | 6 | |

| DISEASES. | Total. | Fatal. | DISEASES. | Total. | Fatal. |
|---|---|---|---|---|---|
| Leucorrhœa | 43 | | Porrigo *scutulata* | 7 | |
| Lichen *simplex* | 2 | | ——— *favosa* | 2 | |
| Lithiasis | 3 | | Prolapsus | 7 | |
| Lumbago | 4 | | Prurigo *mitis* | 5 | |
| Mania | 11 | | ——— *senilis* | 6 | |
| Melancholia | 5 | | Psoriasis *guttata* | 1 | |
| Menorrhagia | 33 | | ——— *inveterata* | 2 | |
| Miliaria | 3 | | Pyrosis | 6 | |
| Morbi *Infantiles** | 127 | 6 | Rheumatismus *acutus* | 64 | |
| ——— *Biliosi** | 101 | | ——— *chronicus* | 73 | |
| Nephralgia | 1 | | Rubeola | 55 | 4 |
| Nephritis | 4 | | Scabies | 58 | |
| Neuralgia | 1 | | Scarlatina *simplex* | 16 | 2 |
| Obstipatio | 22 | | ——— *anginosa* | 8 | |
| Odontalgia | 9 | | ——— *maligna* | 1 | |
| Ophthalmia | 42 | | Scirrhus | 4 | 1 |
| Otalgia | 4 | | Scorbutus | 4 | |
| Palpitatio | 5 | | Scrofula | 13 | |
| Paralysis | 15 | 1 | Spasmi | 17 | 2 |
| Paronychia | 5 | | Strictura | 17 | |
| Pericarditis | 1 | | Strophulus *intertinctus* | 2 | |
| Peripneumonia | 26 | 3 | Singultus | 1 | |
| Peritonitis | 3 | | Syncope | 5 | |
| Pernio | 24 | | Syphilis | 48 | |
| Pertussis | 30 | 3 | Tabes Mesenterica | 17 | 5 |
| Phlegmasia *dolens* | 3 | | Tic Doloreux | 2 | |
| Phlogosis | 5 | | Tremor | 1 | |
| Phrenitis | 4 | | Vaccinia | 66 | |
| Phthisis *Pulmonalis* | 41 | 14 | Varicella | 2 | |
| Physconia | 1 | | Variola | 27 | 8 |
| Plethora | 7 | | Vermes | 25 | |
| Pleuritis | 38 | 1 | Vertigo | 27 | |
| Pleurodyne | 8 | | Urticaria *febrilis* | 7 | |
| Pneumonia | 67 | 9 | ——— *tuberosa* | 4 | |
| Podagra | 23 | | | | |
| Polypus | 3 | | Total of Cases* | 2879 | |
| Porrigo *larvalis* | 4 | | Total of Deaths | | 129 |

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct heads; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

* *Erratum.*—In the last Register, total of Cases, for 3900 read 2900.

The temperature of this month has been very mild, and more than usually uniform for the season. The effects upon the human frame have been correspondent; for although there has been much of disease prevailing, and in some species attended with very aggravated symptoms, yet, upon the whole, it has manifested a greater amenity of character; and consequently the deaths in the Bills of Mortality are happily exceedingly diminished.

Notwithstanding this diminution of general mortality, it will be seen, that the number of deaths in the present register of diseases rather exceeds the proportion in the last to the number of cases: thus confirming what we have often before remarked, that the deaths occurring in private practice are rarely, if ever, coincident with the result of the Bills of Mortality of the same period; which last must be considered as the registers of the deaths of the inhabitants, generally, of this great metropolis:—as for example, the Bills of Mortality for the months of November—December record 2768 deaths, for December—January, 1654 only; while the Registers of the *Repository*, for those two periods, return nearly the same numbers, 125 and 129.

The principal variations in the character of the diseases are, in *Apoplexia*, *Bronchitis*, *Febris catarrhalis*, and *Typhus gravior*. These diseases are

less frequent, but they have all been more severe, and fatal in their effects. Two thirds attacked by *Apoplexia* have died, and one third from *Bronchitis;* catarrhal fever has perhaps lost much of its epidemic form, yet has been more virulent; and the only cases of *Typhus gravior* (five) have all proved fatal.

In the northern district (Hampstead), inflammatory complaints of the organs of respiration have been very prevalent. Children have been most affected, and several fatal cases of pure *Pneumonia* have occurred. The only case of *Croup*, and one of those of *Cynanche pharyngea* were in that district.

Derangements of the hepatic functions, but not in general accompanied with any peculiar distress, have been rife: cleansing the *primæ viæ* with gentle evacuants, and afterwards exhibiting an opiate, has been commonly all that was requisite.

*Pertussis* is decreasing; but the deaths from it are still 1 in 10.

*Rubeola* and *Scarlatina* are also generally diminished; nor is the former so fatal. We say *generally*, because it has had a wide and rapid course since our last Report in the Foundling Hospital. In many of the cases, the disease was attended with a great degree of pyrexia, of pneumonic inflammation and determination to the head. In a few instances it proved fatal. The violence of *Variola* seems to be somewhat abated.

The fatal case of *Epilepsy* occurred in a lady between seventy and eighty years of age. She died in the second attack; the first having taken place about ten days previously, and from the effects of which she appeared to have recovered.

The fatal case of *Scirrhus* was of the Liver. The subject of it was a lady aged sixty-five. This state of the viscus had existed some years; and at length terminated in the ordinary way, by inducing dropsy.

*Examinationes post mortem.*—1. One of the cases of Aneurism was of the arch of the aorta, in a man aged 28. Two or three convulsions preceded his death, which took place in about ten minutes from the first.

The aneurismal sac would have contained a pint of fluid; it had burst into the cavity of the pericardium. The inner coat of the descending aorta was slightly diseased, and its caliber was much contracted.

2. A girl of a scrofulous habit, who had had ulceration of the internal ear for several months, at length died with symptoms of hydrocephalus.

Upon inspecting the head, the vessels of the brain were found very turgid with blood, there were about two ounces of fluid in each lateral ventricle, the petrous portion of the temporal bone was in a carious state, and the internal ear was entirely destroyed.

---

*Monthly Prices of* SUBSTANCES *employed in* PHARMACY.

| | | S. | D. |
|---|---|---|---|
| Acaciæ Gummi elect. | lb. | 4 | 0 |
| Acidum Citricum | | 32 | 0 |
| —— Benzoicum | unc. | 6 | 6 |
| —— Sulphuricum | P. lb. | 0 | 9 |
| —— Muriaticum | | 2 | 0 |
| —— Nitricum | | 4 | 0 |
| —— Aceticum | cong. | 5 | 0 |
| Alcohol | M. lb. | 5 | 0 |
| Æther sulphuricus | | 16 | 6 |
| —— rectificatus | | 12 | 0 |
| Ærugo | lb. | 3 | 6 |
| Aloes spicatæ extractum | | 7 | 6 |
| —— vulgaris extractum | | 5 | 6 |
| Althææ Radix | | 1 | 6 |
| Alumen | | 0 | 6 |
| Ammoniæ Murias | | 2 | 6 |
| —— Subcarbonas | | 4 | 0 |
| Amygdalæ dulces | | 4 | 6 |
| Ammoniacum (Gutt.) | | 14 | 0 |
| —— (Lump.) | | 5 | 0 |
| Anthemidis Flores | | 2 | 3 |
| Antimonii oxydum | | 7 | 0 |
| —— sulphuretum | | 1 | 3 |
| Antimonium Tartarizatum | | 7 | 0 |
| Arsenici Oxydum | | 1 | 6 |
| Assafœtidæ Gummi-resina | lb. | 6 | 0 |
| Aurantii Cortex | | 4 | 6 |
| Argenti Nitras | unc. | 7 | 6 |

| | | S. | D. |
|---|---|---|---|
| Balsamum Peruvianum | lb. | 30 | 0 |
| —— Tolutanum | | 22 | 0 |
| Benzoinum elect. | | 14 | 0 |
| Calamina præparata | | 0 | 6 |
| Calumbæ Radix | | 3 | 6 |
| Cambogia | | 10 | 0 |
| Camphora | | 8 | 6 |
| Cassiæ Cortex | | 6 | 6 |
| Cardamomi Semina opt. | lb. | 9 | 0 |
| Cascarillæ Cortex | | 4 | 6 |
| Castoreum | unc. | 5 | 0 |
| Catechu Extractum | lb. | 3 | 6 |
| Cetaceum | | 3 | 6 |
| Cera alba | | 4 | 0 |
| —— flava | | 3 | 6 |
| Cinchonæ cordifolia Cortex (yellow) | | 6 | 6 |
| —— lancifolia Cortex (quilled) | | 10 | 6 |
| —— oblongifolia Cortex (red) | | 16 | 0 |
| Cinnamomi Cortex | | 20 | 0 |
| Cocceus (Coccinella) | unc. | 3 | 6 |
| Colocynthidis Pulpa | lb. | 38 | 0 |
| Copaiba | | 6 | 6 |
| Colchici Radix | | 3 | 6 |
| Crocei stigmata | unc. | 6 | 6 |
| Cupri sulphas | lb. | 1 | 2 |
| Cuprum ammoniatum | | 14 | 0 |
| Cuspariæ Cortex | | 4 | 0 |
| Cymbalæ aromaticæ | | 10 | 0 |

| | | S. | D. |
|---|---|---|---|
| Confectio Aurantiorum | | 3 | 6 |
| —— Opii | | 6 | 0 |
| —— Rosæ caninæ | | 2 | 0 |
| —— Rosæ gallicæ | | 2 | 3 |
| —— Sennæ | | 1 | 8 |
| Emplastrum Lyttæ | | 7 | 6 |
| —— Hydrargyri | | 3 | 6 |
| Extractum Belladonnæ | unc. | 1 | 6 |
| —— Cinchonæ | | 2 | 6 |
| —— Cinchonæ resinosum | | 3 | 0 |
| —— Colocynthidis | | 4 | 0 |
| —— Colocynthidis comp. | | 2 | 0 |
| —— Conii | | 0 | 9 |
| —— Elaterii | | 24 | 0 |
| —— Gentianæ | | 0 | 6 |
| —— Glycyrrhizæ | lb. | 3 | 0 |
| —— Hæmatoxyli | unc. | 0 | 9 |
| —— Humuli | | 0 | 9 |
| —— Hyoscami | unc. | 1 | 6 |
| —— Jalapæ | 2s. 0d. Res. | 3 | 6 |
| —— Opii | | 3 | 6 |
| —— Papaveris | | 1 | 6 |
| —— Rhei | | 3 | 0 |
| —— Sarsaparillæ | | 1 | 6 |
| —— Taraxaci | | 0 | 9 |
| Ferri subcarbonas | lb. | 1 | 4 |
| — sulphas | | 1 | 6 |
| Ferrum ammoniatum | | 5 | 6 |
| —— tartarizatum | | 5 | 6 |
| Galbani Gummi-resina | | 12 | 0 |
| Gentianæ Radix elect | | 1 | 6 |
| Guaiaci resina | | 7 | 0 |
| Hydrargyrum purificatum | | 6 | 0 |
| —— præcipitatum album | | 9 | 0 |
| —— cum creta | | 6 | 4 |
| Hydrargyri Oxymurias | unc. | 0 | 9 |
| —— Submurias | | 0 | 9 |
| —— Nitrico-Oxydum | | 0 | 9 |
| —— Oxydum Cinereum | | 1 | 6 |
| —— Oxydum rubrum | | 6 | 0 |
| —— Sulphuretum nigrum | | 0 | 4 |
| —— —— rubrum | | 0 | 9 |
| Hellebori nigri Radix | lb. | 2 | 6 |
| Ipecacuanhæ Radix | | 18 | 0 |
| —— Pulvis | | 20 | 0 |
| Jalapæ Radix | | 7 | 0 |
| —— Pulvis | | 8 | 0 |
| Kino | | 12 | 0 |
| Liquor Plumbi subacetatis | M. lb. | 1 | 8 |
| — Ammoniæ | | 3 | 6 |
| — Potassæ | | 1 | 6 |
| Linimentum Camphoræ comp. | | 6 | 6 |
| —— saponis comp. | | 4 | 6 |
| Lichen | lb. | 1 | 4 |
| Lyttæ | | 14 | 0 |
| Magnesia | | 10 | 6 |
| Magnesiæ Carbonas | | 4 | 0 |
| —— Sulphas, opt. | | 1 | 4 |
| Manna optima | | 8 | 0 |
| — communis | | 5 | 6 |
| Moschus pod, (30s.) in gr. | unc. | 40 | 0 |
| Mastiche | lb. | 7 | 0 |
| Myristicæ Nuclei | | 20 | 0 |
| Myrrha elect. | | 9 | 0 |
| Olibanum | | 4 | 6 |
| Opoponaxis gummi resina | | 30 | 0 |
| Opium (Turkey) | | 40 | 0 |
| Opium (East India) | | 41 | 0 |
| Oleum Æthereum | oz. | 2 | 0 |
| — Amygdalarum | lb. | 4 | 8 |
| — Anisi | unc. | 3 | 0 |
| — Anthemidis | | 6 | 6 |
| — Cassiæ | | 9 | 0 |
| — Caryophilli | | 0 | 6 |
| — Cajuputi | | 8 | 0 |
| — Carui | | 1 | 6 |
| — Juniperi Ang. | | 5 | 0 |
| — Lavandulæ | | 5 | 0 |
| — Lini | cong. | 6 | 6 |
| — Menthæ piperitæ | unc. | 4 | 0 |
| — Menthæ viridis Ang. | | 4 | 6 |

| | | S. | D. |
|---|---|---|---|
| Oleum Pimentæ | unc. | 6 | 0 |
| — Ricini optim. | (per bottle) | 12 | 0 |
| — Rosmarini | unc. | 1 | 0 |
| — Succini | 2s. 4d. —— rect. | 5 | 0 |
| — Sulphuratum | P. lb. | 1 | 6 |
| — Terebinthinæ | | 1 | 4 |
| — —— rectificatum | | 2 | 6 |
| Olivæ Oleum | cong. | 22 | 0 |
| — Oleum secundum | | 14 | 6 |
| Papaveris Capsulæ | (per 100) | 3 | 6 |
| Plumbi subcarbonas | lb. | 0 | 8 |
| — Superacetas | | 2 | 6 |
| — Oxydum semi-vitreum | | 0 | 9 |
| Potassæ Fusa | unc. | 1 | 4 |
| — cum Calce | | 0 | 6 |
| Potassæ Nitras | lb. | 1 | 6 |
| — Acetas | | 10 | 0 |
| — Carbonas | | 4 | 6 |
| — Supercarbonas | | 1 | 6 |
| — Sulphas | | 4 | 6 |
| — Sulphuretum | | 2 | 6 |
| — Supersulphas | | 0 | 9 |
| — Tartras | | 3 | 6 |
| — Supertartras | | 1 | 10 |
| Pilulæ Hydrargyri | unc. | 0 | 9 |
| Pulvis Antimonialis | | 0 | 9 |
| — Contrayervæ comp. | | 0 | 4 |
| — Tragacanthæ comp. | | 0 | 4 |
| Resina Flava | lb. | 0 | 5 |
| Rhei Radix (Russia) | | 42 | 0 |
| —— (East India) opt. | | 36 | 0 |
| Rosæ petala | | 14 | 0 |
| Sapo (Spanish) | | 3 | 0 |
| Sarsaparillæ Radix | | 8 | 0 |
| Scammoneæ Gummi-Resina | unc | 3 | 4 |
| Scillæ Radix sicca, opt. | lb. | 4 | 6 |
| Senegæ Radix | | 4 | 0 |
| Sennæ Folia | | 6 | 8 |
| Serpentariæ Radix | | 8 | 0 |
| Simaroubæ Cortex | | 6 | 0 |
| Sodæ subboras | | 4 | 0 |
| — Sulphas | | 0 | 8 |
| — Carbonas | | 6 | 6 |
| — Subcarbonas | | 2 | 0 |
| — —— exsiccata | | 5 | 0 |
| Soda tartarizata | | 2 | 6 |
| Spongia usta | | 30 | 0 |
| Spiritus Ammoniæ | M. lb. | 5 | 0 |
| — —— aromaticus | | 5 | 0 |
| — —— fœtidus | | 5 | 0 |
| — —— succinatus | | 5 | 6 |
| — Cinnamomi | | 3 | 0 |
| — Lavandulæ | | 6 | 0 |
| — Myristicæ | | 3 | 6 |
| — Pimentæ | | 3 | 6 |
| — Rosmarini | | 3 | 0 |
| — Ætheris Aromaticus | | 7 | 8 |
| — —— Nitrici | | 5 | 0 |
| — —— Sulphurici | | 7 | 0 |
| — —— Compositus | | 7 | 6 |
| — Vini rectificatus | cong. | 27 | 0 |
| Syrupus Papaveris | lb. | 2 | 0 |
| Sulphur | | 0 | 9 |
| — Sublimatum | | 1 | 0 |
| — Lotum | | 1 | 2 |
| — Præcipitatum | | 1 | 4 |
| Tamarindi Pulpa opt. | | 2 | 0 |
| Terebinthina Vulgaris | | 0 | 10 |
| —— Canadensis | | 2 | 6 |
| —— Chia | | 14 | 0 |
| Tinct. Ferri muriatis | | 5 | 6 |
| Tragacantha Gummi, elect. | | 9 | 0 |
| Valerianæ Radix | | 1 | 8 |
| Veratri Radix | | 2 | 6 |
| Unguentum Hydrargyri fortius | | 5 | 6 |
| —— —— Nitratis | | 2 | 8 |
| —— —— Nitrico-oxydi | | 3 | 0 |
| Uvæ Ursi Folia | | 3 | 6 |
| Zinci Oxyoxum | | 7 | 0 |
| — Sulphas purif. | | 3 | 0 |
| Zingiberis Radix opt. | | 4 | 0 |

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## NOTICES TO CORRESPONDENTS.

*Professor* Brugnatelli's *favour is received. We accept his offer with pleasure, and will make every exertion to comply with his request.*

*The communications of* Mr. Hennen, Mr. Newnham, Mr. Scott, Mr. Coates, Mr. Blackett, *&c. are also come to hand. Many* authenticated cases *have likewise been received.*

*As we are at a loss to fix on the paper to which* a Surgeon *refers, we know not with what justice he complains. However, we must acknowledge, we cannot accede to the line he prescribes for the* Editors *of a Physical Journal.*

*We are much obliged to our* Truro *friend for his good opinion: and we will save him the expence of a Letter, by adding, that he is unfortunately excluded from examination by the retrospective operation of the* Apothecaries' Act *on those who have not served an Apprenticeship of five years.*

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This Publication, by application to the Clerks of the General Post Office, London; or, if previously ordered, of the Post Masters, British or Foreign, will be sent to any of the British Colonies or Foreign Countries, upon the same terms as other Periodical Works.

*Communications intended for insertion in the subsequent Number should be sent before the 12th of the month; and should be addressed (free of expence) to* Mr. Shury, *Printer, 7, Berwick Street, Soho; by whom Books for the Review Department, Articles of Intelligence, &c. &c. will also be received.*

THE

LONDON MEDICAL

REPOSITORY.

No. 27. MARCH 1, 1816. Vol. V.

## PART I.

## ORIGINAL COMMUNICATIONS.

### I.

*Two Cases of Bronchocele successfully treated.* By W. Newnham, of Farnham, Surry, Surgeon-Apothecary.

Bronchocele is a disease, which, although it has been frequently treated with the happiest results, has nevertheless so often proved refractory, as to have shaken the confidence of a great majority of medical men in the efficacy of any curative means hitherto prescribed; and to have induced in the minds of many almost a degree of scepticism in the reality of the facts which have been narrated. As this disease, although not frequently producing effects fatal to human existence, yet, does oftentimes occasion serious inconvenience, and may prove destructive to life: and as even when these remote consequences are not immediately threatened, it is a source of much uneasiness from the deformity it produces; the following cases may not be unacceptable to the profession, and may contribute to the relief of this extraordinary malady, by removing the doubts of some scientific practitioners.

Case I.

Mr. John Fewhill had been for nearly twelve months past the subject of dyspnœa, which, although unattended by any other indisposition, had so far increased as to induce him to seek medical assistance. He became my patient in November 1813. He referred the uneasiness he experienced in respiration simply to the throat; and observing a considerable fulness of the neck, I discovered, on the removal of his cravat, a bronchocele of moderate size. As well as my patient can recollect, he first discovered this tumour about two years before; but as it occasioned no pain, he thought little about it, till the affection of his breathing drew his attention to the throat. The swelling had progressively increased, and the respiration had been

proportionally impeded. He had employed no remedies whatever; his constitution appeared free from disease, except a slight degree of debility and languor consequent on his employment, which was very sedentary at the age of eighteen.

I directed him to apply the emplastrum ammon. cum hydrargyro to the throat; and after giving him two or three calomel cathartics to cleanse the *primæ viæ*, I prescribed for him small doses of the submuriate of mercury, and a scruple of burnt sponge in a bolus, three times a day, with a draught of decoction of cinchona. The dose of burnt sponge was subsequently increased to half a drachm, and then persisted in altogether for about four weeks. At this time some diminution had taken place in the tumour, and respiration was considerably relieved.

Internal remedies and external applications were now abandoned, with the view of resuming their exhibition after a short interval. In the mean time, on analogical principles, the patient was directed to use friction with the hand, for half an hour three times a day, on the part affected. This discipline was continued for a month, and contrary to my expectation with such signal benefit, that I was encouraged to persevere in the same mode of treatment. In another fortnight no inconvenience was experienced in respiration, and the tumour was scarcely perceptible. Friction however was not finally abandoned for a considerable time; and he has remained ever since quite free from disease.

### Case II.

Miss Wells, a young woman, aged about twenty, having heard of the success attending the treatment of the former case, came to shew me a LARGE bronchocele, which had been increasing for four years, and for which she had employed various empirical remedies, without deriving the smallest benefit. Almost despairing of success, from the great size of the tumour, I was induced, by the anxiety of my patient, to make trial of a similar treatment, having previously put in requisition all the patience which she could muster.

The treatment was commenced in January 1815, by giving her calomel with burnt sponge, and decoction of bark, as in the former case; to which however was superadded from the beginning the constant use of friction three times a day, for twenty minutes or half an hour each time, and the occasional inunction of camphorated mercurial ointment twice a week upon the enlarged thyroid gland. My patient soon grew tired of medicine, and indeed took it so irregularly, that no considerable effect can be ascribed to its influence. The plan however was attended with early and marked benefit, so that she was encouraged diligently to persevere in the use of the

local remedies. By the end of March the tumour was diminished in size more than one half, and by constant perseverance it continued to decrease till not a vestige of the disease remained behind. She has now discontinued friction and every application for more than four months, and remains entirely free from complaint.

OBSERVATIONS.

On comparing these cases, which are related simply as they occurred, I am much induced to doubt the efficacy of constitutional remedies. In the former, the principal improvement occurred when medicine had been abandoned; and in the latter, it was taken so irregularly, as scarcely to admit a conclusion of its efficacy. The impression upon my own mind, from a review of the cases, is, that the principal reliance in the treatment of bronchocele should be on local remedies, particularly friction, the efficacy of which may be assisted by the occasional use of those applications which are calculated to excite the action of the absorbent system. Yet it will remain a question, whether the tumour would have been so quickly or so effectually dispersed, unless the constitution had been previously altered and improved. Nor is it perhaps of great importance to decide this question, since the constitutional remedies may be advantageously employed for a time in almost every instance. In this case, practitioners will judge for themselves; I simply relate the facts, and leave others to draw the inference.

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## II.

*Observations on the Cure of Diseases of the Abdomen.* By J. Gumprecht, M. D. Hamburgh, Counsellor to the Duke of Saxe-Cobourg, Corresponding Member of the Medical Society of Montpellier, and Knight of the Russian Order of St. Wladimir.

An indolent circulation of the humours, and obstructions of the viscera, together with a weakness of the nerves of the abdomen, are indubitably to be classed amongst the most difficult complaints requiring medical aid. Besides the application of the usual remedies, experience has ascertained that mineral waters are very efficacious in these cases; but the number of persons, whose circumstances permit them to take advantage of this remedy, is comparatively very small. As inward remedies do not, however, always produce the wished-for effect, I am about to propose an outward very powerful application for their cure.

We are taught by anatomy that the numerous plexus nervorum of the abdomen lie in the region of the pit of the sto-

mach: and we farther see in the appearances of magnetism, and particularly in the application of it, that, when the pit of the stomach is operated upon as the central point, magnetic sleep succeeds. I am, therefore, of opinion, that it might be useful for the cure of the above-mentioned complaints, to raise artificial sores in the region of the pit of the stomach by the rubbing in of unguentum ex antimonio tartarizato. The ulcers thus formed would stimulate the activity of the lymphatic and nervous system of the abdomen in a distinguishing manner.

Experience has proved the beneficial efficacy of artificial sores, raised in the region of the stomach, in obstinate spasms, by the above ointment; and I have frequently had occasion to convince myself of their use in cases of insanity. They might also be applicable in hypochondriacal complaints, to procure an increased activity in the interrupted circulation of the humours of the abdomen, and a change in the nervous system; and also in many complaints of the abdomen occasioned by nervous debility.

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## III.

*Upon a very frequent Cause of Female Disorders.* By the Same.

The rational physician is distinguished from the empiric, by not merely noticing the symptoms in cases of disease, but by endeavouring to trace these to their causes. The most experienced physician, however, does not always succeed in discovering efficient causes; and in that case he is obliged to proceed upon general principles and a regard to symptoms.

Among the number of female disorders, there are many, the causes of which frequently escape the researches of the best physicians, and consequently are deemed incurable.

What I propose to notice is not quite new; but the subject, which is one of very important consequences in the successful treatment of female disorders, seems to me not to be sufficiently attended to: I trust, therefore, this communication will not be uninteresting to the practical physician.

In irritable young females, the menses sometimes exceed the usual state, both with regard to duration and quantity. This circumstance is frequently kept a secret from the physician, partly from modesty and partly from prejudice; many females being of opinion, that the flowing of the menses for a few days longer, and somewhat copiously, is conducive to their health, by clearing the body of bad humours. The physician, therefore, on his inquiry, is informed that they are in due order;

is satisfied; and commonly suffers the matter to rest. And, in general, when this periodical evacuation lasts longer, and flows a little more copiously than usual, Nature endeavours soon to restore the equilibrium; but often this monthly gradual decrease of the mass of blood lasts for years, and becomes prejudicial to the whole organismus. In such females, hysterical symptoms gradually come on, accompanied sometimes with a troublesome fluor albus, which the physician, as he is still kept in the dark by the answers received to his inquiries, in vain attempts to combat with antispasmodic remedies.

Experience has taught me to consider this circumstance as the frequent cause of *spasmodic complaints in women;* and I cannot sufficiently recommend this observation to the attention of the physician, particularly in his treatment of young subjects. By directing his observation to this point, he will frequently be able to cure nervous disorders, which defy every ordinary attempt. The chief remedies against complaints originating from this cause, are the preparations of iron, particularly *iron tinctures*, and the *infusum corticis aurantiorum.* From a number of cases I will only select one, which, as a striking instance, deserves to be particularly noticed.

Some time ago I was consulted by a woman 32 years of age, who had been married about eighteen months. She had for a twelvemonth laboured under spasmodic complaints, particularly of the stomach and abdomen, together with a severe head-ache and frequent fainting fits. A host of hysterical symptoms accompanied these complaints. Her appetite was lost; and she felt herself very weak, with frequent pains in the loins. For the space of four months she had been successively treated with powerful antispasmodic medicines, but without any beneficial effect. Upon my inquiry whether her menses were regular, I was told they regularly appeared every four weeks: but on a minute inquiry I learned that about six years since they had disappeared for a whole year, and then returned regularly every four weeks, but had continued rather copiously for five, six, and even seven days; to which, however, she had paid no attention, considering it as very beneficial for her constitution. Two years afterwards she was attacked with moderate leucorrhœa, which was attended with slight spasms of the stomach, and succeeded by loss of appetite and the spasmodic affection already mentioned.

Discerning now the origin of her complaint, I gave her hopes of recovery. Finding that her organs of digestion were much enfeebled, I began to invigorate them by the application of gentle aromatic remedies, such as Tinctura Aromatica, with Naphtha; and to relieve the spasms, prescribed the Magisterium Bismuthi with Oleo-saccharum Menthæ, Tinctura

Valerianæ Anodyna *Lentini*, with Liquor Cornu Cervini succinatus: then, to prepare her for the iron remedies, proceeded to prescribe the Tincture of Bark joined to the Tinctura Absynthii, and aromatic baths; and finished with the *Naptha ferri acetatis*. The last medicine was continued in increasing doses for five weeks. By the careful application of all these remedies, joined to exercise and appropriate diet, in about ten weeks my patient was so completely restored, that she has felt herself perfectly well ever since.

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## IV.

### *Observations on the Effects of Spiritus Terebinthinæ; and some other Remedies.* By F. W. Weaver, Surgeon, Walsall.

It is generally observed, and the fact must be acknowledged, that ere we form an opinion, or estimate the utility of a favourite hypothesis, its component parts should be analytically examined with much prudent discrimination, and compared with accurate observations founded on practical experience. Were this always done, fluctuating opinions would subside, and diffuse narratives, the mere ephemera of a day, would give place to explicit substantial theory founded on the basis of truth; we should not be carried away by every wind of doctrine, nor led astray by the captivating and delusive charms of obtaining medicinal specifics and infallible remedies, the prolific offspring of a deluded imagination.

Much chagrin and disappointment have frequently been experienced by placing too much confidence in the virtues of supposed "specifics;" and recently some, too hastily and prematurely extolled by professional men of skill and judgment, have been found, under more correct and extensive trials in practice, to possess no such properties, or at least not to the extent so ostentatiously held forth. We have been informed, for example, that the "*Spiritus Terebinthinæ*" possesses such wonderful powers and properties, as to correct the progress of the most violent of spasmodic affections of the muscular system; to cause in tenia, an immediate expulsion of the worm; and in amenorrhœa, from whatever cause, to rouse the vital energy of the uterine system, and speedily promote the return of the suppressed periodical discharge. So strongly has it been recommended from various quarters of respectability, that it would constrain us to bow with deference to the veracity, integrity, and correctness of the different statements with which we have been favoured, relative to its almost specific properties in the above, and many other diseases of an opposite kind and ten-

dency, verging close upon empiricism, did not the experience of others and myself of its inutility in spasmodic affections prove that we are not warranted in assenting to the too hasty opinion of its boasted powers. I have given it an extensive trial; and in one particular instance, of a female, 29 years of age, who is (and has been for many years) afflicted with the most violent epileptic spasms I ever witnessed. As my patient was of a sanguine, strong, athletic habit, I commenced with general and topical bleeding, cathartics, epispastics, &c. and then had recourse to the favourite and popular remedy, beginning with one ounce, 3tiis horis, ex infuso. menthæ; and augmenting the dose to two ounces, without any relaxation or abatement of the fits, either in their strength or frequency. As no unpleasant results, however, were produced from this powerful stimulus, and being well acquainted with her constitution, I ventured to give her four ounces per se, which was productive of no visible effects, excepting a slight nausea, and without any alleviation or mitigation of the spasms. As forty-eight ounces were given in about eighteen days without any effect, excepting the nausea, I think this case alone (out of many I could relate) is almost sufficient to convince the most sceptical of the inutility of this medicine.

In the expulsion of tenia, it has succeeded better; and, in some instances, has brought away the worms of an enormous length. I have one in my possession 36 yards long, which ultimately, however, destroyed my patient.

In amenorrhœa, I think, no regular skilful practitioner would have recourse to so uncertain a remedy; as its *modus operandi* must be doubtful, and its effects fortuitous, not being exhibited on any rational principle.

The accurate and judicious reports of a *Withering*, a *Ferriar*, and others, are indeed well calculated to inspire with confidence, and to give energy and vigour to our medical pursuits. Their indefatigable exertions in cultivating medical science, rescued from oblivion many valuable remedies which had remained dormant for centuries, and were exploded from practical use by reason of ignorance, timidity, and superstition. By their investigation into the medicinal virtues and properties of two valuable productions of nature, the Digitalis and Elaterium, powerful and useful auxiliaries in certain diseases of an hydropic tendency, were brought again into use, and have contributed, in some degree, "to the alleviation of human misery." The utility of these remedies, in the hands of discreet practitioners, experience has confirmed, although, probably, not to the extent to which we have been led to believe. The Elaterium I have recently used with good effect, and consider it a valuable acquisition: — the virtue of Digitalis has been over-rated.

The cure of tenia capitis is frequently tedious, and productive of much anxiety and uneasiness.

A few days since, an intelligent person (one of whose children was afflicted with this loathsome disease) informed me, that after having tried a variety of means to little or no purpose, he had recourse to "*tan water*," which eradicated the malady in a few days. No doubt, water impregnated with the astringent principle of the quercus cortex may be an useful application in those eruptive complaints attended with acrid secretions.

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## V.

*Singular Case of Aneurism of the Aorta.* By P. K. Newbolt, Assistant-Surgeon to the North Devon Regiment, Plymouth.

The subjoined case of aneurism of the aorta occurred in the hospital of the North Devon Regiment:

James Parkhouse, aged forty years, had lately been discharged from the Marines, in which corps he served many years, and had enlisted about three months in the North Devon Militia; since which, until within a few days of his death, he performed his duty without any complaint or appearance of illness. His muscular powers were greater than usual for his height, which was five feet four inches; he was much in the habit of wrestling, and was a hard drinker.

He was first seized October 5th, 1815, whilst carrying a heavy weight, with difficulty of breathing and a sense of suffocation. He was immediately taken to the Regimental Hospital, and had then every appearance of labouring under a fit of long standing asthma, although he declared he never had had a symptom of the kind before. An antispasmodic was given, which produced almost immediate relief; in the evening he appeared quiet and easy; a blister was ordered to be applied to the chest.

6th. He was much as on the preceding evening. His bowels being rather confined, he took an opening draught which operated towards evening, and produced an alleviation of symptoms. A draught, with

Antim. Tart. gr. ½
Julep. e Camph. f℥iss.

was then ordered to be given every four hours. He continued much the same for two days.

8th. During my evening visit, the spasm returned with increased violence; the pulse was much quickened, but very feeble. I immediately ordered

℞ Ætheris Rect. f ʒj.
Tincturæ Opii ♏ iv.
Julep. è Camph. f ʒiss. M.

which gave instant relief.

9th. He had passed a restless night. Spasm returned this morning with still greater severity than in either of the former attacks: the antispasmodic draught was repeated without success. Six ounces of blood were drawn from the arm, which had the desired effect.

℞ Pulv. Ipecac. gr. iij. omni mane,

with the anodyne draught to be taken at bed time, and the antimonial draught to be omitted. In the evening the spasm returned. He was again relieved by blood-letting, and continued without any aggravation of symptoms until the 13th.

13th. He had a return of spasm, and was again relieved by the lancet; and the cathartic was repeated. His countenance now became sallow and sunk, with a vacant stare; he was hoarse, and his breathing attended with continued wheezing; the pulse very feeble and much quickened.

14th. Said he felt better than he had since his admission.

15th. Still expressed himself better; hoarseness and wheezing increased; and at eleven o'clock P. M. I was called to him in haste, as he was bleeding to death; which event, on my arrival, I found had taken place about ten minutes. On inquiring of the orderly man what the symptoms were immediately previous to his dissolution, he said that he suddenly leaped from the bed, on which he leant forward, threw up a quantity of blood, in appearance not less than a gallon, and almost directly expired.

DISSECTION.

The body was examined twenty-four hours after death, in the presence of some medical friends.

There was great lividness of the integuments along the course of the spine and back part of the inferior extremities. On opening the cavity of the thorax, the lungs were found adhering so firmly to the pleura, that it was with difficulty they could be separated. They were of a considerably darker hue than natural, but shewed no further marks of disease; the pericardium did not contain more than two ounces of fluid; the heart itself bore no mark of disease, but it was completely emptied, and exhibited a beautiful specimen of that organ. The aorta at its origin was in its natural state; but on dividing its arch, an aneurismal sac was perceived directly where the innominata, left carotid, and subclavian arteries are about to be given off. It rested on the anterior part of the trachea, and burst through it, on the fifth ring from its bifurcation; and as the

opening was large enough for the admission of the little finger, the great quantity of blood so instantaneously thrown up, by coming directly from the heart, through so large an aperture, can be accounted for. The only mark of disease in the cavity of the abdomen was the adhesion of the left lobe of the liver to the stomach, by four or five lateral bands, which were firmly attached to both viscera.

What is most remarkable in this case is, the patient having experienced no inconvenience until ten days before his death; and the absence of every symptom by which one might calculate on the existence of an aneurismal tumour so near the great organ of life. The pulse was peculiarly small and quick during the whole stage of the disease, which shewed every symptom of a long standing asthma; an affection which might be induced by the pressure of the aneurismal sac on the trachea.

The singularity of this case induces me to lay it before the readers of the *Repository*, the opinions of any of whom upon it I shall be happy to see in a subsequent Number.

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## VI.

*Cases of Ulceration of the Pharynx and the Larynx, with Observations on the Treatment of these Diseases.* By James Bedingfield, Apothecary to the Bristol Infirmary*.

### Case I.—Pharyngis Ulceratio.

Margaret Semay, aged thirty years, was admitted on the 19th of December 1814, into the Bristol Infirmary, with the usual symptoms of pneumonia. For the relief of these she was bled; antimonial medicines were prescribed, and a strict antiphlogistic regimen enjoined. Under this treatment, which was persisted in for fourteen days, she appeared to be nearly recovered, when she began to complain of a disagreeable sensation about the throat, attended with a disposition to cough, and a frequent discharge of frothy mucus. These symptoms gradually became more urgent and distressing; and a hoarseness succeeded, which sometimes was so great as to prevent what she said from being understood; at other times she could only whisper indistinctly. Difficulty in deglutition and respiration was next experienced. Deglutition occasioned much pain, and the inhalation and expulsion of the air produced a peculiar sound; somewhat similar to that which may be feigned, by drawing

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* This valuable communication having been mislaid, occasioned its being deferred longer than it ought to have been. We hope the author will accept this as an apology.—Editors.

air quickly and forcibly down the trachea, at the same time contracting the glottis, and making an effort to form the guttural sound, ur—r—rl. Instead of this noise, occasionally an unpleasant whistling prevailed.

These symptoms evidently pointed out a diminution from some cause in the capacity of the trachea or glottis, while the incessant cough, copious expectoration of frothy mucus, and pain felt upon handling or pressing upon the sides of the thyroid cartilage, seemed to indicate that ulceration existed within, and on some portion of the membrane lining the larynx. Upon inspection of the posterior parts of the fauces and pharynx, no trace of disease could be discovered; but the difficulty and pain in swallowing, rendered it probable, that some morbid change in structure existed out of sight. The patient remained in this state for twelve weeks, when the powers of life rapidly declined; her pulse became almost imperceptible; respiration laborious; and deglutition nearly stopped. In this state she continued four days, when she suddenly threw up a large quantity of blood from the lungs, which threatened instant suffocation. She expired a few hours after this occurrence.

EXAMINATION OF THE BODY.

The appearance which the parts exhibited upon dissection afforded a satisfactory elucidation of the symptoms which existed during the life of the patient. In consequence of a thickening of the membrane of the larynx the rima glottidis was considerably lessened in its diameter. This, in addition to the smallest trachea I ever saw in an adult, will explain the cause of the difficulty which was experienced in respiration. The trachea was not larger than we generally meet with it in a child of twelve years of age. The bronchiæ were proportionably small, and would not allow of the introduction of the first joint of the little finger. A full sized urethral bougie only would have passed with a tolerable degree of facility. In a trachea so much smaller than it is ordinarily met with, it is evident, that even a slight diminution of its capacity must be productive of serious inconvenience. Just below the arytœnoid cartilages, a considerable degree of inflammation had existed. Marks of increased vascularity were very apparent; the redness extended itself for the distance of an inch and a half along the posterior part of the trachea. I shall have occasion again to notice this circumstance, when describing the disease which existed in the pharynx.

At the anterior part of the pharynx, just below the rima glottidis, a tumour, in shape and size resembling a filbert, was situated. Its external surface, or that part looking towards the back of the pharynx, was smooth, and it had the appearance

of an absorbent gland. That portion of it which was opposed to the anterior part of the pharynx was in a state of ulceration. By its pressure, it had likewise produced ulceration of its membrane and the adjacent muscles. This ulceration extended for a considerable way downwards, and by it an excavation had been effected, which, had the patient lived a short time longer, would have formed a communication between the larynx and superior part of the trachea; the membrane spread upon those parts forming the only barrier between them. This is the spot to which I alluded as being in an inflamed state. This inflammation probably induced the incessant cough with which the woman was harassed. The slight partition which existed between the pharynx and larynx, and the superior parts of the trachea and œsophagus, could not be discovered until a considerable quantity of a curd-like scrophulous matter had been dislodged from the excavation. Several scrophulous tumours, about the size of large glandulæ pacchioni, were met with upon the inner surface of the œsophagus. No disease was found in the lungs or abdominal viscera.

LARYNGIS ULCERATIO.

This disease is of more frequent occurrence than is generally suspected. It is often mistaken for phthisis pulmonalis; but the peculiar hoarseness and the difficulty of respiration with which it is attended, together with an almost total exemption from hectic paroxysms, are circumstances which will enable us to distinguish them from each other. Its precise nature is well elucidated by a narration of the following cases.

1.—William Birch, ætat. 39, was several times admitted into the infirmary, in the course of three years, labouring under symptoms of pneumonia; which were uniformly relieved by venesection, blisters upon the chest, and low diet. He complained, however, of a tickling sensation about the upper part of the throat, with a constant desire to cough, and his voice gradually underwent considerable alteration. At first it was only thick, but it became by degrees exceedingly hoarse and disagreeable. On the last time of his admission, the symptoms which were present were the following: hoarseness, a harassing and almost incessant cough, with a very copious expectoration of a frothy mucus, in which purulent particles were plentifully interspersed: the expectorated fluid had sometimes rather the appearance of pus distended with minute air bubbles than simple mucus. The pulse was frequent and rather full; the tongue generally white in its centre and florid at its edges. The uvula was seen to be elongated; the back part of the fauces very red, and the tonsils somewhat enlarged; the appetite and spirits were good, and there was no other feeling of indisposition than that of lassitude, which a want of natural

rest induced; for during the night the cough was so incessant, as frequently to preclude sleep altogether. The body was much emaciated; the skin sometimes dry and rather hot, and the cheeks a little flushed; but a profuse hectic perspiration at no one time covered his skin. He continued in this state four months, when the powers of life being utterly exhausted, he sunk a victim to the disease.

EXAMINATION OF THE BODY.

The superior aperture of the larynx was diminished; and its membrane was thickened and vascular, more particularly about the edges of an ulcer, by which one of the arytœnoid cartilages had been completely destroyed and a large portion of the other removed. There were no marks of disease in the trachea; and as the ulceration within the larynx so satisfactorily accounted for the symptoms which had existed during life, the lungs were not examined.

From having inspected several similar cases, in which no disease of those organs existed, I have no hesitation in giving it as my opinion, that in this case they were but little, if at all, affected.

2.—Sarah Hopkins, ætat. 19, was admitted on the 2d of June 1814, affected with difficult respiration, accompanied by a peculiar noise in the trachea, somewhat resembling croup, a cough, and a soreness of the throat. Upon inspection of the fauces, the uvula was observed to be elongated, and the tonsils enlarged. She exhibited no marks of constitutional disease or debility; her pulse was perfectly natural, and she was entirely free from pain in the chest. According to her own account she had been in the state above described three months.

Treatment:

Mittantur sanguinis brachio f℥xij.
Applic. vesicat. sterno.
Cap. Mist. Salin. Ant. sextis horis; et lohoo pro tussi.

June 4th.—The same difficulty of respiration; with the bowels confined.

Cap. Pulv. Cath. statim et Mist. Cath. donec alvus responderet,
Sum. Pulv. Ant. Anod. gr. x. (Nosocomii Bristoliensis) hora somni.

Early in the morning of the 5th she died suddenly: her breathing had become more laborious the preceding evening.

EXAMINATION OF THE BODY.

The rima glottidis was very much contracted, and the epiglottis abraded upon its sides and concave surface. An ulceration commencing at the superior and posterior part of the larynx extended downwards to a small distance below the ventricles of Galen. The trachea was filled with purulent matter. Upon this being sponged away, an extensive and deep ulcera-

tion was discovered upon its posterior part, half an inch below the inferior aperture of the larynx. About a quarter of an inch below this, upon the anterior part of the membrane, another ulcer was situated. This ulcer spread in a circular direction, and nearly embraced the whole circumference of the trachea, for the space of the third of an inch. In short, the whole surface of the trachea was more or less destroyed by the disease, to within half an inch of its division into the bronchiæ. Upon this small portion, there were slight traces of inflammation, and its follicular structure was very apparent. The membrane lining the bronchiæ was highly vascular; but no disease existed in the lungs, heart, or abdominal viscera.

Every case of ulcerated larynx and trachea which had fallen under my observation has terminated fatally. I feel myself incapable of suggesting any satisfactory or successful mode of treatment; but I suspect however that much time is lost in having recourse to constitutional remedies, instead of regarding it as a local affection. The disease is extremely insidious in its approach and progress, and will often commit extensive and irremediable ravages before its existence or nature can be ascertained. From the frequent application of blisters along the larynx, trachea, and parts adjacent, some advantage will be derived. Blood ought also to be often drawn from the same parts by means of leeches. I have never seen much benefit result from the inhalation of any vapour. In Birch's case, which was suspected to have a syphilitic origin, mercury was exhibited, and the fumes of cinnabar inhaled: where such a suspicion exists, no doubt can arise as to the propriety of this practice. May I venture to ask, would it be adviseable to make an opening into the trachea or larynx, and apply such substances to the ulcer as would have the effect of exciting a healthy action upon its surface? I have seen several ulcers upon the surface of the body bearing a very strong resemblance to ulcers of the larynx, cured by one or two applications of nitrate of silver. That this is a hazardous operation I am ready to admit; but I am decidedly of opinion, that the destructiveness of the disease fully justified its being resorted to. I will venture to affirm, that if the disease be left to itself or combated only by internal remedies, it will *uniformly prove sooner or later fatal;* there are many chronic affections which, to be conducted to a happy termination, require as prompt and active assistance as the most acute.

Until professional men arouse themselves from that apathy with which they too frequently contemplate danger at a distance, the practice of medicine will be unsatisfactory and inefficient; and many a valuable life will fall a sacrifice to supineness, imbecility, or indecision.

## VII.

### *Observations on a Review of Dr. Wilson Philips' Experiments, as published in the Philosophical Transactions of* 1815. By Veritas.

When authors obtrude upon the public crude speculations and fanciful theories, they are hardly entitled to complain of any treatment they may receive. But those writers, whose aim is merely to extend our knowledge of subjects generally interesting, by the relation of what they have observed, always merit our respect, and, if they succeed in extending the limits of our knowledge, our gratitude. It is by such means alone that knowledge can be extended.

These remarks are suggested by a review in the Medical and Physical Journal for last month of Dr. Philips' second paper on the relation which subsists between the sanguiferous and nervous systems, published in the Philosophical Transactions of last year. The sarcastic style of the remarks, which appear to me peculiarly misplaced in the review of a simple detail of experiments, and the conclusions to which they lead, is the least weighty charge which may be brought against them. Their author has undertaken the review of a work, a considerable part of which he does not appear to understand; and when he appears to understand, he seems wilfully to misrepresent it. How far these heavy charges are substantiated by the following remarks, I leave the reader to judge.

Were it not for the title of the paper, there is nothing in the review which could lead the reader to suppose that Dr. Philips had written any previous paper on the same subject; although the present paper is only a continuation of the former. The first experiment which the reviewer gives an account of, relates wholly to that part of the subject which is discussed in the first paper; so that this experiment is given without the least allusion to the purpose for which it was made, although this is fully explained in the paper reviewed; and in the quotation from this paper which follows, the passage alluding to the first paper is omitted. For what reason is the first paper unnoticed, and all mention of it so carefully avoided?

It is apparently the reviewer's intention to give an account of the experiments which next follow in the paper, by which the author points out the comparative effects of stimuli applied to the brain, on the heart and muscles of voluntary motion. Of the second of these experiments he observes, "It is remarkable that no mention is made of respiration, the only important circumstance connected with this part of the experiment." What is meant by saying, that in an experiment which

is made to ascertain how far the action of the heart is affected by a stimulus applied to the brain, the *only important circumstance* in any part of it, is the state of the respiration? Of this experiment he says, "The wires were passed as in the last experiment, and with the same result." Now the result of the first of these experiments was, *that the muscles of voluntary motion were only affected when the stimulus was applied near to the origin of the nerves.* The result of the other was, *that the heart was affected by the stimulus applied to every part of the brain.*

His account of the third experiment is wholly unintelligible. How the spirit of wine can be said to be applied to the "extremities of the nerves," when it was wholly confined to the brain, it is difficult to comprehend; but indeed the same inaccuracy runs through the whole of the review.

"We could wish on this occasion," the reviewer observes, "that the author, whilst about his experiments, had examined some other muscles of involuntary motion besides the heart." Is it possible that the reviewer is so utterly ignorant of the first part of the investigation, of the second part of which he is attempting to give an account, that he does not know that Dr. Philips had made similar experiments on the alimentary canal; and does he not consider the vascular system as muscles of involuntary motion, Dr. Philips's experiments on which are related in the very paper before him?

Mr. Hunter, the reviewer alledges, has anticipated the results of Dr. Philips' experiments. "The heart's motion," says Mr. Hunter, "does not arise from an immediate impulse on the brain, as it does in the voluntary muscles." This is a peculiarly unfortunate quotation; the result of Dr. Philips' experiments being exactly the reverse of Mr. Hunter's assertion. It appears from them that the heart's motion often does arise from an immediate impulse on the brain. No man has a greater respect, I may say veneration, for Mr. Hunter, than the writer of this paper; but I feel no hesitation in affirming, that the works of this great physiologist contain no anticipation of the views afforded by Dr. Philips' experiments.

The reviewer again complains, that the state of the respiration is not attended to in Dr. Philips' experiments, because he has not taken the trouble to read the first part of the investigation, in which its state is particularly mentioned, and the effect produced on the heart by its interruption and renewal pointed out.

The real blunder is curious enough. Dr. Philips has explained at some length the cause of stimuli applied to the brain and spinal marrow producing effects so different on the muscles of voluntary and those of involuntary motion; but instead of Dr. Philips', the reviewer offers what he calls his own expla-

nation, (page 123.) I confess I have not penetration sufficien to see how the final cause of inflammation at all relates to the subject before us; and the reviewer does not seem to understand, that as far as relates to Dr. Philips' experiments, the question is not respecting the final, but the efficient cause of the phenomena in question. Perhaps it never occurred to the reviewer, that the difference between the final and efficient cause is a matter of any importance.

He then observes, "Some remarks follow on the effect of communicating sensation," motion, he should have said, "by the nervous ganglia. In these there is nothing new." The points on this subject, ascertained by the experience of Dr. Philips, are, that the heart obeys stimuli applied to every part of the brain and spinal marrow; and consequently that nerves issuing from ganglia, the only nerves which the heart receives, convey the influence of every part of these organs, while those parts of the body not supplied with nerves from ganglia obey only the minute parts of the nervous system from which their nerves arise. Now either the reviewer knows of some work not known to the public, in which Dr. Philips has been anticipated in this discovery, or he has here stated what he cannot confirm.

"The succeeding experiment," the reviewer continues, "goes to shew that if a frog's head is cut off, and the spinal marrow destroyed, and the blood stopped by a ligature round the neck, *that* the circulation will for a time continue. Did any one doubt it? or the inference that the blood-vessels retain their power after the nervous system is destroyed." Is it possible to ask a question which betrays greater ignorance? Is the reviewer wholly unacquainted with the works of Hoffman and Cullen, and all the followers of these celebrated writers; with the experiments of various physiologists of the first name, particularly of M. le Gallois, made for the express purpose of proving that the power of the heart and blood-vessels is wholly dependent on the nervous system?

What he means by saying that the experiments which prove that the vessels can support the motion of the blood independently of the heart, "are only remarkable for their unnecessary cruelty and unsatisfactory result," it is not easy to comprehend. Is there any way of making the experiment but by removing the heart? and can any experiment be more satisfactory than that which fully ascertains the point on account of which it was made, a point of such consequence in the present investigation; that without its having been previously ascertained, some of the most important inferences respecting the relation which the vessels bear to the nervous system, could not have been arrived at?

As he so often calls the reader's attention to the cruelty of experiments on living animals, it was due to Dr. Philips to say, that in the majority of his experiments the sensibility of the animal was destroyed before the experiment was begun; and that this appears always to have been done, except where it would have rendered the experiment useless.

In one respect the reviewer does well; he closes his review of the paper, by quoting the author's conclusions. He prefaces them however by the following sentence; "we shall now offer the author's general conclusions, that our readers may see to what good purposes Dr. Philips has employed himself." There are but two things which can sanction the sarcastic turn of this sentence,—either the conclusions being of no importance towards tracing the laws of the animal oeconomy, or their not being legitimate inferences from the experiments. Their importance will not be questioned by any person acquainted with the subject, and the reviewer has not even attempted to prove that they are not legitimate inferences from the experiments.

I fear the length of this communication may be considered too great; but I trust it will be excused on the plea, that false impressions on subjects of importance cannot be too carefully counteracted.

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## AUTHENTICATED CASES, OBSERVATIONS, AND DISSECTIONS.

### VII.—*Observations on the frequency of* Dysentery *at the Bermuda Islands, and on its Mode of Treatment.*

The prevalence of dysentery is so common and fatal to the crews of ships at the Bermuda Islands, that I am induced to offer, through the medium of the *Repository*, a few cursory remarks from my journal upon it, as it appeared on board his Majesty's ship——, at the latter end and beginning of the years 1813-14; and of the plan successfully pursued to prevent the contagion spreading, as well as for the recovery of those afflicted with it.

The Bermudas possess all the disadvantages of the West-India islands, without, in my opinion, having the advantages many of them enjoy. For instance, they neither have fresh stock, vegetables, nor fruits, in sufficient quantity for the supply either of the army or navy resorting there. These islands are likewise exposed to continual rains; and the sun does not appear to have power adequate to the evaporation of this extraordinary degree of moisture of the atmosphere. Hence the climate is a

predisposing cause, and the natural productions of the earth are not so abundant as to afford all the means of relief to the sick.

During southerly winds the ships at the wells, as also the hospital, are very much exposed to the exhalations of very large marshes, filled with mangroves, stagnant waters, and decaying weeds.

Sailors and soldiers, and those especially from colder latitudes, when they arrive, find such a sudden change, that they are glad to throw off all warm clothing, and substitute lighter and cooler; added to which, the intemperance of the men when on shore, exposure at night, owing to the impossibility to get either bed or lodgings, that this endemic of the country is the natural consequence of such imprudencies. I have also often seen them in a state of intoxication, exposed during the sun's meridian, with neither hat, jacket, nor in fact any covering to their heads, necks, or chests; their mouths and nostrils filled with flies, &c. and thus remaining until they are sober. Men thus situated soon become much debilitated if not actually diseased, and are ready subjects for contagion.

The dysentery first appeared on board, in a man who brought it from a prize vessel. Between forty and fifty men were soon attacked with it. In three of the cases the delirium ran very high; one of them was immediately relieved by taking away eighteen ounces of blood, and the operation of an active emetic with antimonium tartarizatum; another by spontaneous epistaxis, and the rest by the treatment I shall presently detail.

All the sick were ordered to be confined to their beds, to lie between blankets, and to wear flannel waistcoats, drawers, and night caps. In short, the use of linen was prohibited.

An emetic, containing from eight to eighteen grains of antimonium tartarizatum was first exhibited, and afterwards a purging mixture; and to some, calomel was given. The patients were sponged, or bathed with warm vinegar and water, and then wiped dry with coarse towels. Opium was sometimes prescribed; but small doses produced the best effect, excepting where there was very great tenesmus; and then this symptom was generally removed by glisters with opium.

Every precaution was taken to prevent the disease from spreading. The ship was fumigated; each man had a separate bucket for his use; convalescents were removed to a private round-house; plenty of fresh air was admitted, but not in a current immediately on the patients. Dr. Carmichael Smyth's mode of fumigation was adopted, particular care was taken in regard to cleanliness, and the decks were sprinkled often with vinegar.

Although the greatest attention was paid in order to prevent contagion, yet still the list increased five or six daily.

Finding that the foregoing plans of fumigations, &c. were ineffectual, I proposed to the Captain the propriety of having the lower deck washed with vinegar above, as well as under foot; to be well smoaked and dried with wood fires, which were kept smoaking for the space of two hours; then to be white-washed, and afterwards to be well dried with clear coal fires, previously swabbing the decks, that neither vinegar nor white-wash might remain on them.

The day after these operations there was an addition of three cases only. The fumigations, &c. were continued, and only one case occurred on the following day. By persevering in this plan for a week, no more sick were added to the list. The detail of one case will suffice to shew the general treatment.

CASE.

January 13, 1814.—D. G. ætatis 38, a very sober man, stout made, but not altogether of a very full habit, had been about three days since at liberty on shore. He states that he was not able to procure a bed or lodging, and was obliged to sleep under a bush. His general complaints are, griping pains in the bowels, tenesmus, with scanty motions, great thirst and head-ache; his pulse is hurried and thready: says that he had, during the night, cold shivering fits, at times accompanied with nausea. He took the following emetic:

℞. Antimonii Tartarizati gr. viij.
Pulveris Ipecacuanhæ gr. xv.
Aquæ Puræ, q. s. ut fiat haustus, statim sumendus.

It was well worked off with warm water; and both purged and vomited him. He was then put to bed, well covered with blankets, and supplied with warm and diluting drinks. He was soon asleep, and perspired profusely.

Six P.M.—Has had five hours and a half sleep, and three motions, which were very costive.

℞. Magnesiæ Sulphatis ℥iss.
Antimonii Tartarizati gr. j.
Aquæ Menthæ Pip.
Infusi Sennæ āā f℥iij. — Misce. Capiat cochl. j. tertia quaque hora donec alvus soluta sit.

14th.—He has had several stools during the night, discharging a large quantity of indurated feces; is much relieved; but still complains of head-ache and great thirst: the skin is dry, although he has perspired much during the night.

℞. Misturæ Salinæ f℥ss.
Misturæ Camphoræ f℥j.—Ft. Haustus, 4tis horis sumendus.

℞. Pulveris Antimonii gr. iv.
Opii gr. ¼.—Misce. Ft. pilula, 4tis horis sumenda.

One P. M.—Much the same as in the morning; has had but one small motion.

Ten P. M.—Continues as during the day, but has had another stool.

15th.—Continues as yesterday, and has had two motions; perspired greatly during the night.

16th.—As yesterday.

17th.—Has had only one motion during yesterday; is troubled with an unusual degree of flatulence; with great inclination for going to stool, and slight gripings. Let him have an injection, and an aperient, with Magn. Vitr. et Infus. Sennæ.

Two P. M.—The aperient has operated well, and the injection brought away scybalæ, relieving at the same time the tenesmus. Ordered the saline draught and the pill, increasing the opium to gr. ss. and allowing a little wine, as he wished much for it and was somewhat reduced from the action of the cathartic.

Ten P. M.—Is asleep with a gentle perspiration; but his countenance appears somewhat convulsed, as if in pain.

18th.—Seven A. M.—He was disturbed much during the night with gripings and tenesmus. An injection with opium, and a draught with gtt. x. tinct. opii, were exhibited; after which he slept for about three hours, when he had a stool which contained some indurated feces mixed with mucus. At half-past six the tenesmus and gripings returned with double vigor. Finding him in this state, I gave him an emetic of Pulv. Ipecac. gr. xx. which operated well, and although it did not produce any motions, yet it relieved the tenesmus and gripings. He slept after it about two hours. When he awoke, he complained of an inclination for stool, but could void nothing. A glyster was thrown up, which produced a motion composed of mucus streaked with blood; and afterwards he had a purging mixture of Infusion of Senna and Sulphate of Magnesia.

Six P.M.—No stools. Gave him five grains of Calomel with a quarter of a grain of Opium.

Ten P.M.—Complains he cannot sleep, and has much head-ache. Ordered him to continue the purging mixture. Skin very hot and dry. Repeated the opiate.

19th.—Eight A.M.—He has had a restless night; his skin is very hot and dry; complains of thirst and slight nausea.

Nine A.M.—Has had one stool of mucus streaked with blood, with a few films floating therein. An injection produced

a similar one, and relieved the tenesmus; after which his bowels were fomented, and he slept for about five hours.

Half-past One P.M.—Seems easy, and took a little arrow root.

Six P.M.—Has had three motions, but they were all of mucus with blood; repeated the mixture, calomel pill, and injection.

Twelve P.M.—Has had a stool of scybalæ and blood, with tenesmus. The injection was repeated, which brought away more scybalæ, and quite relieved the tenesmus.

20th.—Ut heri.

21st.—Has had a very bad night, with gripings and tenesmus; his motions were sometimes blood, at other times lumps of dark-brown coagula. He was now so much exhausted, that I was induced to give him a little wine with opium, and he had three injections; but these were of little service.

Nine A.M.—He has a considerable degree of fever; pulse irregular; tongue furred; breath fœtid; nausea and tenesmus, and violent gripings. I now prescribed the following, which I repent I did not administer earlier:

℞. Antimonii Tartarizati gr. xij.
Pulveris Ipecacu. gr. xv.
Aq. Puræ q. s.—Misce, statim sumendus.

After vomiting him two or three times, it then began to operate both as a cathartic and an emetic, bringing away a vast quantity of scybalæ, mixed with a kind of putrid sanies. After its operation, which was smart, he had some negus; he was then well covered with blankets, supplied with warm drinks, and kept in a continued perspiration for the space of thirteen hours: he then had a motion without the least signs of blood, mucus, or scybalæ.

22d.—My patient has had a tolerably good night; he passed three motions, and one was with scybalæ; he is perfectly free from fever or head-ache; but complains of great debility. I allowed him a small proportion of wine, and gave him going to bed the following:

℞. Infusi Sennæ f℥ij.
Vini Antimonii,
Tincturæ Opii āā ♏ vi.—Ft. haustus.

23d.—Two natural stools during the night. Cont. haust. ut heri.

25th.—Allowed him some broth; is a little costive; gave him an aperient.

26th.—Several motions; passed a very good night; complains of hunger; allowed him moderate diet.

31st.—A little costive; gave him an aperient. He gets stronger daily.

Feb. 1st.—The aperient operated well. He has had a good night.

2d.—Continues easy; but is very much debilitated.

3d.—Has a slight diarrhœa. Prescribed the following;

℞. Infusi Quassiæ f℥ij.
Tincturæ Zingiberis f℥j.
Tincturæ Opii ♏ v.
Acidi Sulp. diluti ♏. x.—Ft. haustus, 4tis. horis sumendus.

4th.—The diarrhœa is relieved; says he is stronger; and finds himself better since he took the last medicine. Allowed him wine.

12th.—Improved in every respect.

From this time he became convalescent, debility being his only complaint.

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## VIII.—*Case of Tabes with Hydrocephalus; and the Examination post Mortem.*

The subject of the following examination was a child about eight months old, whose bowels in its earliest infancy became very much deranged under an attempt to bring it up by hand.

A wet nurse was procured at the end of a fortnight, and the child recovered. At the age of three months it was weaned, and in three weeks afterwards the same disturbance in the bowels recurred. This continued for a fortnight, when the child was brought to London. The stools were at this time colourless and very solid; changing afterwards, under the influence of calomel, to an appearance like spinach, and then becoming at times nearly natural. The abdomen was tense and tumid, but often varying in degree; and, in spite of the means employed, the child continued to waste, until it became emaciated in a very extraordinary degree. There were almost constant expressions of uneasiness; but rarely of acute suffering; and it was only in the last ten days that there were any indications of mischief in the head, and these were not conclusive. In the last two months the child was wholly supported by a woman's milk, which was constantly drawn from the breast, as it could not be made to suck. It died in a slight convulsion fit.

### DISSECTION.

In the *thorax*, the heart and lungs were found perfectly sound and healthy, excepting that they were unusually pallid and bloodless.

In the *abdomen*, the liver appeared nearly of its natural size, of a pale lemon colour, and quite soft and pulpy, especially on its under side. The gall bladder was empty and colourless, and contracted to the size of a common quill. Nearly the whole of

the mesenteric glands were enlarged and indurated; but the stomach, spleen, and intestines shewed no appearance of disease. A small quantity of fluid was found in the cavity of the abdomen.

On attempting to remove the *cranium*, very considerable difficulty was experienced, from the dura mater adhering to it with an uncommon degree of firmness throughout its whole extent. Immediately under the dura mater was a collection of fluid, amounting, with what afterwards escaped from the ventricles, to between four and five ounces. The brain was unusually soft and pulpy. The teeth were in a state of forwardness; but none had pierced the gums: the irritation they excited was more than once relieved by the lancet.

## IX.—*Case of Suppression of Urine.*

A YOUNG WOMAN, aged 23, applied on the 26th of December 1815, for relief from a suppression of urine, which appeared to have been gradually coming on her for four years. At frequent periods she had had a difficulty in passing her urine; so much so, that she was often three quarters of an hour in evacuating a small quantity, and then it was done with much pain. She had endured it without applying for medical aid during the above time; but being in extreme pain from retention and the attempt to void the urine, she applied for relief.

There did not appear any fulness of the abdomen on examination; but there was an appearance of inflammation at the orifice of the urethra. Some actively aperient medicines were exhibited, which, with warm fomentations to the perineum, gave ease, and enabled her to pass some little urine. The next day the catheter was attempted to be introduced; but the excruciating agony she appeared to endure, and the obstruction it met with, obliged it to be laid aside. Sixteen ounces of blood were taken from the arm, and bottles of hot water continued to the perineum. This antiphlogistic treatment afforded more relief; but still her urine was not frequently nor freely evacuated. The medicines prescribed consisted of saline and mucilaginous *diuretics*.

On the 30th I was sent for in a great hurry, the patient being said to be dying. On my arrival her whole appearance denoted her to be in violent pain, from an immense accumulation of urine. Her abdomen was very much swollen, which had proceeded to the present alarming extent, only from the prior morning. It was evident that the urine must be drawn off in some manner; and from the impossibility to pass the catheter before, it was again resorted to with little hopes of success: but after a few minutes' cautious trial, it suddenly passed into the bladder, [illegible] pushed by some obstruc-

tion, and a whole wash-hand-basonful of urine was immediately evacuated; since which she has been progressively amending*.

## *PART II.*

## ANALYTICAL REVIEW.

### I.

*Medico-Chirurgical Transactions, published by the Medical and Chirurgical Society of London.* Vol. VI. 8vo. pp. 676. Plates. Longman and Co. 1815.

Were any proof required of the advantages which the arts and sciences have derived from bringing men of similar habits and views together, we need merely refer to the volumes, of which that now before us is the sixth, of a series, published by the Medical and Chirurgical Society of London, as an example of what has been effected for Medical Science by such an association. Each successive volume, as it has appeared, has not only tended to raise the characters of the individual contributors, and shed an additional lustre on the Society; but has contributed in an eminent degree to forward the objects of medical literature: and if the volumes be critically examined, we have no hesitation in affirming that their value will be found to be in the ratio of the recentness of their publication; and that the present, as it is the latest, is also the most valuable of the series. As we have not been in the habit of eulogizing either individuals or public bodies, we trust we shall not be accused of flattery on the present occasion, by those who are not acquainted with the object of our praise;—by those who are, we know we shall be regarded as simply bestowing the meed of approbation where it is justly merited.

* From previous and a long neglected state of inflammation, it is possible that a partial adhesion of the *meatus urinarius* had taken place in this case; and that there was a forcible separation of the newly adhering parts, by the slight violence used on the second attempt to introduce the catheter. Whatever may have been the cause of obstruction, we apprehend, from the account given, that this was one of those cases in which much mischief is likely to occur from the too common practice of giving *diuretics*, when distension of the bladder originates from a retention of urine. Medicines that increase the secretion of the kidneys, must aggravate the symptoms when the suppression is occasioned by stricture or other obstructions.—Editors.

In laying before our readers the analysis of this volume, we will not attempt any arrangement of the papers, but notice them as they successively occur; merely observing, that we cannot perceive the principles which have fixed their situations in the volume; as they are not given either according to their length or their importance, or in the order of time in which they were read; but appear to have been printed either according to some whim of the council, or as they were accidentally drawn from the portfolio of the secretary. This, however, is of minor importance; and, although, we are to regard the aggregate credit as reflected upon the Society, yet each paper is to be viewed as an isolated essay, for the management of which the author alone is responsible. Many of the articles scarcely admit of abridgement; and we regret that the narrowness of our limits prevents us from making from some of them such ample extracts as we feel inclined to do: we shall, however, endeavour to give as correct a sketch of each, as the concise method to which we are confined permits.

1. *An Account of the Origin and Progress of the Plague in the Island of Malta, in the Year* 1813, by Robert Calvert, M.D. Physician to the Forces.

The object of this paper, as stated by the author, is to give a "faithful narrative of the introduction and progress of the plague at Malta," in 1813; and to ascertain "the laws of pestilential contagion," so as to discover the best means of warding off the approach of the disease from our ports.

The style of the narrative is simple, perspicuous, and, for the nature of the subject, sufficiently elegant; the cases are recorded as they occurred; and traced, in a very satisfactory manner, as nearly as possible to their sources: and the details throughout possess a considerable degree of interest.

It appears that the Island of Malta was perfectly free from any disease resembling plague until the 1st of April, when the captain of the San Nocolo, a vessel which had arrived from Alexandria on the 29th of March, "who was in the lazaret, was suddenly seized with head-ache, giddiness, and other symptoms of that disease; and died in the course of about thirty-six hours." The plague was raging at Alexandria when this vessel left that port; and two of the crew had died during the voyage, with symptoms which strongly evinced that the disease to which they had fallen victims was the plague. The servant also of the captain, who was in the lazaret with him, was seized "with similar symptoms, and died after a like interval:" after which, although the ship was sent back to Alexandria, and the most judicious precautions were taken to prevent the pestilence from spreading in the island, yet, various cases soon appeared in different parts of Valetta and Floriana, while, by degrees, it

extended to the adjacent villages, occasioning scenes of distress of the most afflicting description; and did not abate until the middle of December.

Reasoning on this narrative, that, from the measures which were adopted, the disease could not have spread by contact; Dr. Calvert conceives that the only explanation which can be given of its introduction and progress on this occasion, must rest on the supposition that the contagion or virus of the disease is diffusible in the atmosphere; and that through that medium, those predisposed to the disease became affected.

"I do not mean to deny," says he, "that contact generates the disease; on the contrary, I am persuaded, that this or vicinity, particularly if long continued, is the most certain mode of communicating it, as the history of the progress of the plague at Malta sufficiently illustrates; but I am inclined to deny that this is essential to the propagation of the contagion.

"It appears to me, that this contagion or principle of plague, is diffusible in the atmosphere to a distance greater or less from an infected body, according to the climate and season of the year, and possibly to other peculiar states of the atmosphere, with which we are unacquainted: that in the spring or summer season, a single infected person is sufficient to contaminate the air of a whole city; and that those who happen to be then exposed to febrile causes, or otherwise predisposed, are the first to become its victims. That these newly infected persons generate a fresh supply of poison, increasing its strength and influence, till at length it becomes so powerful, that nothing but the winter season will entirely put a stop to it. Nor is this wide diffusibility of the pestilential poison from the body of one man, more wonderful than that of a grain of musk that will *sensibly* affect the air in a room for twenty years together, without suffering any diminution of its volume.

"In this way, and in this way alone, we are able to explain the first introduction of the plague into Malta, in the year 1813. From the nature of this situation, and from the description of the people who governed and inhabited it at that period, Malta was better calculated to clear up this point than almost any other place. So active, indeed, was every eye, and so anxious every heart, from knowing that the plague was within the port, that it is next to an impossibility that it could have been brought in by clandestine intercourse. The crew of the infected ship was securely locked up in the lazaret; guards were placed upon the ship itself as long as it continued in the harbour, while every suspected person was seized and carried to the lazaret. But all was to no purpose. The disease seemed to laugh at their exertions, while it jumped from house to house, and from street to street. Those who had no communication together, as well as those who had, fell alike victims to its fury. Nothing could bring to light the way in which the infection was brought. Surely, if any evidence had been forthcoming, it would not have been kept back when a free pardon was offered to the delinquents, besides a reward of a thousand scudes; or, if this was not

sufficient, the dreadful anathemas that issued from the church could not have failed to produce confession. As many of the guard must have been in the secret, had any thing been taken from the ship, is it not probable that some one of these would have stepped forward to accept this reward and forgiveness? That the disease was brought in by plundering the ship, however, is rendered still less probable, from the circumstance of nothing happening to the men who reconducted her to Alexandria, nor yet to those who took out the cargo."—pp. 54—57.

Although we must confess, that the reasoning of our author, as far as it is borne out by the evidence in the narrative, is very satisfactory, yet we feel slow in admitting it as perfectly conclusive: for were we to allow the principle to the full extent which he contends for, we should feel it difficult to explain why the English, who shut themselves up in Aleppo and in Constantinople during the periods in which plague has raged in these cities, have escaped; while, from the deaths of thousands around them in every direction, the atmosphere must have been fully saturated with the miasm of the disease. Be this, however, as it may, we implicitly agree with Dr. Calvert in his opinions with regard to lazarets; and trust the following hints may attract the notice of those who have the power to apply them to practice.

"Instead, then, of voluntarily admitting ships known to be infected with plague into the very bosom of our cities, we ought to use the utmost vigilance to prevent such an occurrence: not, however, by compelling the unfortunate crew to seek refuge amongst the merciless waves, but by erecting lazarets in such situations as would not endanger the public safety. Neither does it follow, that because the founders of existing ones were ignorant of the laws of the contagion, they should be continued in use."—p. 62, 63.

These observations become more important at the present moment, when the numbers of our countrymen in the Mediterranean and Levant must, necessarily, increase with the extension of our possessions in that quarter of the globe.

2. *A Case of Locked-Jaw, cured by Oil of Turpentine given as a Glyster;* by Edward Phillips, M.D.

This was a well-marked case of tetanus, evidently proceeding from intestinal irritation; as the affection of the jaw was preceded by symptoms of an hysterical nature. The patient, a young lady, was bled both locally and generally; her bowels were very freely evacuated with calomel and scammony; the warm bath was frequently had recourse to, and laudanum exhibited in large doses, but without any beneficial effect; on the contrary, on the evening of the fifth day of Dr. Phillips' attendance, there was an aggravation of all the symptoms.

"On entering the room," says the author, "I found Miss S. in

strong and frequent spasms; the abdominal muscles were particularly affected, and the muscles of the face also partook of the general conflict; syncope came on, and the pulse was weak, rapid, and intermitting. The sickness returned, and was almost incessant, and tired nature seemed nearly exhausted under such accumulated sufferings.

"I immediately desired that a clyster might be thrown up with some force from a syringe, composed of half an ounce of turpentine, rubbed down with the yolk of an egg, in eight ounces of infusion of senna; and as Mr. Poore arrived just as the clyster was brought, we agreed to wait and see the effect it might produce. In about five minutes after the enema was given, we were in a hurried manner called by Miss S.'s mother to go into the bed-room, and to our great joy and surprise we found our patient sitting up in the bed smiling, the jaw was completely unlocked, and she with great complacency thanked us for the great and almost instantaneous relief we had afforded her. She was able to move the left arm and leg, and there was a total subsidence of the disease and its attending bad symptoms. A glass of wine was given to her, which she drank without any difficulty. As it was late, I requested that she might be kept as quiet as possible, and her friends were prohibited from holding any unnecessary conversation with her.

"I now became anxious to learn from my patient some particulars of her own feelings during the operation of the clyster. It appears that almost immediately after it was given, she felt a glow of heat accompanied with a prickling sensation, first in the calfs of both legs, pursuing the course of the spine up to the neck, and afterwards to the head and face; the room then appeared to her to be full of smoke, and the jaw instantly fell. To her mother and two young ladies present, there was a visible change in the countenance, which led the two latter to retire from the bed-side, under the impression that she was dying."—pp. 69—71.

There was no return of the disease; and by the assistance of gentle tonics and aperients, the general health was rapidly restored. Dr. Phillips offers no explanation of the *modus operandi* of the oil of turpentine; although he adds, "that the whole plan of treatment pursued was the result of much previous reasoning and careful deduction." This is certainly to be regarded as a defect of the paper: for even an erroneous theory is better than none; inasmuch as it leads practitioners to think, and prevents the disappointments which must necessarily result from the prescribing remedies on mere empirical principles; or because they may have proved beneficial in cases of an apparently similar description.

3. *A Case of an extraordinary Enlargement of the Scrotum, with an Operation successfully performed for its Removal*; by John Maddox Titley, M.D. of St. Christopher.

The subject of this extraordinary case was a negro, thirty years of age, whose scrotum had begun to enlarge at an early

period of his life, when he was attacked with the swelling of the legs peculiar to Barbadoes, and some time after he had received a kick on the right testicle from a mule. But as the testicle was reduced to its natural size before the scrotum began to enlarge, the disease cannot be regarded as connected with this local injury. The following is the state in which Dr. Titley found the diseased part.

"On removing his petticoat, there was exposed to view, a tumour of rather an oval form, seemingly suspended from and greatly stretching the abdominal integuments and spermatic cords, reaching backwards to the verge of the anus, and descending to within an inch or two of the ground. It measured longitudinally from the symphysis pubis to its base 29 inches, circularly 43. The spermatic cords could be distinctly felt, somewhat enlarged, the penis was completely enveloped; the urine was discharged in a full stream and without difficulty at an orifice situated nine inches below the pubis; on stretching this laterally, the extremity of the penis could be seen at the distance of about three inches; this canal was formed by an elongation and distention of the prepuce. The surface of the tumour was equal, smooth, with superficial veins; the superior part thinly interspersed with hair; the inferior scaly at times. The integuments felt extremely thickened, but were not of equal firmness, and retained for a time the impression of the finger. His appetite was good, his bowels regular, and his general health unimpaired. He informed me that when on his back in bed, and under the impression of lascivious ideas, he was subject to erections of the penis, at which times this member would project an inch or two at the orifice above mentioned; but that they were never terminated or attended by seminal emissions."—pp. 75, 76.

The tumour, which was very judiciously and dexterously removed, weighed seventy pounds! The testicles occupied their natural position: one was about the size of a hen's egg; the other was rather diminished, and its vaginal coat contained three pints of water. The parts healed kindly; and the patient was under a course of Fowler's solution of arsenic, with the view of removing the swellings of the legs, when the communication was transmitted by the author.

4. *On the Use of Nicotiana in Retention of Urine;* by Henry Earle, Esq. Surgeon of the Foundling Hospital.

The author of this paper was first led to propose the administration of tobacco "in obstinate cases of retention of urine, in a paper on diseases of the urethra," which was drawn up some years ago for a medical society. The communication before us contains the successful result of his practice with this powerful antispasmodic in three well-marked cases of that disease. The remedy was employed in the form of enema, the infusion "being of the strength of one drachm to eight ounces of water." The visible effects were faintness, languor, and

clammy perspiration; during which the urine flowed. The results of Mr. Earle's employment of tobacco in these cases are too important to be overlooked by practitioners; but in adopting the practice, we trust they will bear in mind the judicious observation with which he closes his remarks, that "it ought not to be adopted indiscriminately in slight cases, but reserved for instances were more simple means have failed."

A case of tetanus is subjoined, which terminated fatally; but in which the tobacco enema evidently afforded a temporary alleviation from spasm. The lancet was very freely employed in this case, and the ease experienced after each bleeding was such as to lead the patient to request it should be repeated when the spasms became violent. We are rather surprized that the aid of purgatives was not resorted to, as the great benefit derived from that class of remedies in tetanus is now well known to the profession. Their employment, suggested by the perusal of Mr. Nodes Dickinson's judicious cases*, was the means of saving the life of a soldier attacked by tetanus at Brussels; and the successful issue of a case which lately occurred at the York Hospital, may be chiefly attributed to the use of purgatives and the tobacco enema.

5. *Case of Obstruction of the large Intestines, occasioned by a Biliary Calculus of extraordinary Size*, by H. L. Thomas, Esq. F.R.S.

The size of this calculus was, "in its longer (larger) diameter, 1·6 inch, and in its smaller diameter, 1·1 inch; the circumference in that direction being exactly 3·3 inch." It weighed 228 grains. It produced obstruction of the bowels, with symptoms resembling strangulated hernia; to relieve which, as the patient had "long been afflicted with an irreducible umbilical hernia, Mr. Thomas's assistance was requested." He, however, judiciously delayed operating; and in the mean time the calculus was expelled by stool, with an immediate relief of all the symptoms denoting general irritation.

The most remarkable circumstance in the case, is the "expulsion of so large a body from the gall-bladder into the duodenum; and afterwards its progress along that part of the intestine engaged in the hernial sac." An instance came under our own observation, in which a biliary calculus, as large as a pigeon's egg, was expelled after fourteen hours of very severe suffering, and passed by stool. It has been suggested, that in the majority of instances of the expulsion of such large calculi, it is probable that an abscess is formed opening into the duodenum, or the colon; but it is more probable that they pass

* *Vide Repository*, vol. i. p. 190.

through the ductus choledochus; and we need not cite instances of the great dilatability of membranous canals in proof of this opinion.

6. *A Case of Incontinence of Urine of Nine Years' Duration, cured by External Pressure;* by John Hyslop, Esq.

The patient was a young gentleman, thirteen years of age; and the involuntary evacuations of urine were very frequent, both during the day and in the night. As he was removed to the house of the author of the paper, the best opportunity was obtained for employing the ingenious device which happily terminated the disease. The following is the method by which the pressure was applied:

"I selected a bougie of a size large enough to fill his urethra, from which I cut about two and a half, or three inches. Having placed that on the outside of the under part of the penis on a line parallel to the canal, with its point projecting a short way beyond the glans to avoid as much as possible any pain from pressure, I passed straps of adhesive plaister around, (first at the point of the penis, and afterwards continuing strap after strap the length of the piece of bougie,) and pulled them so tight as to press the bougie close in upon the urethra, so that no space was left by which urine could pass.

"This was done at ten o'clock at night, and at three o'clock he called me out of bed, having a great desire to pass urine. I removed the straps, &c. and when he had emptied his bladder, I applied others in the same manner. The next desire for this evacuation was about seven o'clock, and the next again at eleven o'clock in the forenoon. After each evacuation the pressure was renewed without any unpleasant symptom, and in three days he was cured of incontinence of urine."—p. 110.

The author suggests the propriety of this treatment in paralysis. We conceive a bandage might be contrived, of more easy application than the adhesive straps. The treatment by compression however is not new*.

7. *A Case of Aneurism by Anastomosis in the Left Orbit, cured by tying the common Trunk of the Left Carotid Artery;* by William Dalrymple, Surgeon to the Norfolk and Norwich Hospital, &c.

This is a case which does not admit of abridgment. The operation was completely successful; and the author observes, he entertains no apprehension "of a recurrence of the disease:" adding,

"With respect to the state of the local circulation, as far as it can be known, there is no pulsation to be felt in any of the branches

* Vide *Journal de Médecine*, tome lxxvi. p. 459. *Hufeland's Annalen*, i. p. 425. *Dessault, Journal de Chirurgie*, tome iii.

of the temporal and facial arteries on the side on which the ligature was tied. But, as in the case treated by Mr. Travers, 'the artery may be distinguished beating very feebly below the angle of the jaw;' and a very brisk action of collateral branches, lying near the surface, is visible in the vicinity, and along the course of the cicatrix." —p. 122, 123.

8. *Account of a Case in which parts of a Fœtus were found in a Tumour situated in the Abdomen of a Girl two years and a half old*, in a letter from Edward Phillips, M.D. of Andover.

In the girl, the subject of this account, an enlargement of the abdomen was perceptible at the age of three months; but her general health did not suffer until about two months before her death; at which time she became much emaciated, and suffered greatly from pain when in the erect posture. A hard regular tumour was situated on the left side of the abdomen, which, on examination after her death, was found to occupy "almost the whole of the left hypochondrium, and extending from the edge of the diaphragm nearly to the pelvis."

"The tumour, when removed from the body, might have weighed about eight or ten pounds. It was of an oblong shape, loosely covered by a delicate membrane highly vascular. On making a section of it, some ounces of a limpid fluid escaped from a cavity, the parietes of which were nearly cartilaginous; and in prosecuting the dissection, several similar compartments were discovered, all of which contained fluid or sanious matter.

"In the further examination of this fleshy mass, our attention was arrested by the resistance which the knife met with; and which led to the discovery of the bones which I have sent you. They were connected to the internal substance of the tumour by a structure decidedly muscular. The large bone, resembling the tibia, was covered by muscle; the small bones, resembling those of the tarsus, were connected to the tibia by soft cartilaginous bands."—p. 126.

Dr. Phillips conceives this to be an example of one fœtus being contained within another.

9. *A Case of Axillary Aneurism, for which the Artery was tied below the Clavicle*, by Richard Chamberlaine, Esq. jun.

This is an extremely interesting case, proving not only the facility of tying the artery below the clavicle; but, also, as the author observes, "the competency of the anatomosing channels to nourish the limb when its principal artery has been obliterated at nearly the highest possible point that dissection can reach it." For the satisfaction of those who may not have an opportunity of perusing the original, we extract the description of the operation.

"The patient was placed upon an operating table, with a pillow under his shoulders, and his head supported. A transverse incision of three inches in length was made through the skin and platisma

myoides along and upon the lower edge of the clavicle, three fingers' breadth from the sternal extremity of that bone, and terminating about an inch from the acromion scapulæ. This incision divided a small artery, which was immediately secured. A second incision of three inches in length was also made obliquely through the integuments over the deltoid and pectoral muscles, meeting the first nearly in the centre. The cellular membrane and fat lying between them at the upper part were now removed. The next step in the operation consisted in detaching the clavicular portion of the pectoralis major, and taking away the fat and cellular membrane lying over the subclavian vessels. The artery was now brought into view, and its pulsations made it clearly distinguishable from the contiguous parts; but I could not detach it, nor pass the ligature underneath it with the facility I expected, from its depth. After several ineffectual efforts, I succeeded in conveying the ligature under it, by means of an eyed ball probe previously curved for the purpose, and bringing up its point with a pair of forceps, tied the artery as it emerges from under the clavicle to proceed to the axilla. The drawing of the knot was attended with little pain; the wound was closed by the dry suture, and the patient returned to his bed."—p. 130.

10. *Successful Treatment of a Case of Cynanche Laryngea*, by James Watson Roberts, M.D. of Bishop Stortford.

11. *Remarks on the preceding Case*, by the President of the Society.

A peculiar importance is attached to this case, as is observed by the President in his commentary upon it, from "the subject of it having suffered a second attack of the same disorder, which proved fatal*."

The more striking symptoms were, the face swollen and redder than usual; the eyes protruded and bloodshot; a fulness about the neck, the muscles feeling very turgid, and the breast suffused with a purplish colour. There was no enlargement of the tonsils; and no great difficulty of deglutition. The general arterial action was augmented with great somnolency; but although there was hoarseness, yet there was no cough, and little dyspnœa.

Before Dr. Roberts saw the patient, the inhalation of oxygen gas was had recourse to, and appeared to have afforded instantaneous relief to the respiration; but the remedies to which the successful issue of the case is justly ascribed, were large and repeated bleedings, and cooling purgatives.

In his remarks in this case, the President, in addition to the remedies which have proved beneficial in the very few instances

* For an account of this attack, vide Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge, vol. iii. art. 22.

of the disease that have terminated successfully, proposes the employment of *very large blisters*, the effect of which he observes are "so different from that of small ones, that they may be considered as a distinct class of remedies." He also recommends early local and general bleeding, and "the total abstinence from opiates." Of the propriety of the free use of the lancet and purgatives, and abstinence from opiates, there can be but one opinion; but we are not quite prepared to assent to the application of *very large blisters*, the first effect of which must be to increase very considerably the general excitement; except when the exhausted state of the patient may preclude the copious abstraction of blood. We are rather surprized that the operation of bronchotomy is not noticed.

12. *Account of a Case of Croup, in which the Operation of Bronchotomy was successfully performed*, by Thomas Chevalier, Esq. F.L.S. &c.

This was a well-marked case of croup, in which suffocation appeared almost inevitable; the countenance was livid, cold sweats had come on, and the patient, a boy seven years of age, was rapidly sinking. Under these circumstances the author opened the trachea, by dividing vertically two of the cartilaginous rings just below the cricoid cartilage, and "cutting, afterwards, transversely in the interstice between them." A quantity "of reddish and frothy mucus gushed through the opening; and by a tolerably full inspiration which presently followed, the child was enabled to cough up more of the same kind;" the breathing was immediately relieved: and recovery ultimately effected. The value of this paper, however, does not so much consist in the detail of the case, as in the following observations, which we therefore extract:

"In such cases of croup as I have examined after death, I have found the trachea choked up with this mucus, and I am very much inclined to suspect that it is by it more than by the coagulable lymph, that suffocation is finally produced. When the quantity of mucus is such as to prevent the air from getting into the branches of the bronchiæ, and from thence to the air-cells, the patient becomes unable to clear the tube by coughing, the properties of the blood must rapidly degenerate, and death will speedily ensue. But I doubt whether this is so often to be ascribed to such an accumulation of the coagulable lymph itself, as absolutely precludes the transmission of air. If this suspicion be just, the use of bronchotomy must result chiefly from its emptying the trachea of mucus, and thus enabling the patient so to cough, as to clear the branches of the bronchiæ, without which the air, even if it pass through the obstructed larynx, cannot reach the lungs.

"It would also follow, that the introduction of a canula, or tube, into the trachea after the operation, for the sake of securing the passage of air, is of less consequence than has been usually sup-

posed, and might even be better omitted, as the presence of an extraneous body must irritate the internal membrane, and would thus be likely to increase that secretion of mucus, from an accumulation of which the principal danger is to be apprehended."—p. 154, 155.

13. *A new Method of tying the Arteries in Aneurism, Amputation, and other Surgical Operations, with incidental Remarks on some Collateral Points*, by William Lawrence, Esq. F.R.S. &c.

This paper is one of great interest, and highly creditable to its author. After giving a rapid sketch of the various modes which have been adopted for stopping hæmorrhages in operations, and the opinions of surgeons regarding the employment of the ligature from the time of Parè, who invented it, to that of Dr. Jones, who taught us the principle on which its effects on a living artery are produced, Mr. Lawrence thus describes the improvement which he proposes in the application of it.

"The method I have adopted consists in tying the vessels with fine silk ligatures, and cutting off the ends as close to the knot as is consistent with its security. Thus the foreign matter is reduced to the insignificant quantity which forms the noose actually surrounding the vessel, and the knot by which that noose is fastened. Of the silk which I commonly employ, a portion sufficient to tie a large artery, when the ends are thus cut off, weighs between $\frac{1}{50}$ and $\frac{1}{80}$ of a grain: a similar portion of the thickest kind I have tried weighs $\frac{1}{30}$ of a grain, and of the slenderest $\frac{1}{100}$. These ligatures do not interfere with the process of adhesion, and we shall hardly entertain any serious apprehension that substances so minute will excite subsequent irritation and disturbance.

"That kind of silk twist, which is commonly known in the shops by the name of dentists' silk, and which is used in making fishing-lines, is the strongest material I know of, in proportion to its size, and therefore the best calculated for our purpose, which requires considerable force, in drawing the thread tight enough to divide the fibrous and internal coats of the arteries. This twist is rendered very hard and stiff by means of gum, which is applied to it in the process of its manufacture, and may be removed by boiling it in soap and water. The latter process loosens its texture, elongates it, and makes it weaker, so that, after boiling, we can break with the fingers a thread, which could not have been so broken before.

"The stoutest twist, which I have used, is a very small thread compared to the ligatures made of inkle, which are commonly employed at St. Bartholomew's Hospital; I cannot however break it with my fingers and thumbs, although a great force may be applied in this way, by winding the thread round the ends of the forefingers, and drawing it over the ends of the thumbs, as in the ordinary method of tying the arteries. The quantity of such a thread, necessary for the noose and knot on the iliac artery, weighs $\frac{1}{30}$ of a grain; or if the gum has been removed, about $\frac{1}{20}$. But the finest twist kept in the silk shops is strong enough, in its hard state, for any surgical purpose; and the noose and knot would not weigh $\frac{1}{40}$ of a grain. The finer kinds of silk, if used very cautiously, will answer the end

extremely well; but their breaking so easily is an objection to their common employment. When the muscles or other soft parts in an amputation are diseased and thickened, or when it is necessary to include some of the surrounding substance with the bleeding vessel, a stronger ligature is necessary, than for tying an artery fairly drawn out from the surface."—p. 163—165.

It might *prima facie* be supposed, that this small ligature is improper for large vessels, but the experiments of Mr. Lawrence have proved the contrary; and led him to form this conclusion, that "if any proportion is to be observed between the size of the artery and the ligature, it should be an inverse one:" which was further corroborated by ascertaining that the thicker the ligatures are, the sooner they are detached, and hence the greater hazard of secondary hæmorrhagy.

With regard to the question, "What becomes of these ligatures?" Mr. Lawrence candidly acknowledges that he is not "in possession of the facts which are necessary to answer it satisfactorily;" but notices that Mr. Guthrie, speaking on this subject in his treatise on gun-shot wounds, states that he had seen them discharged at small abscesses. As foreign substances, however, their minuteness may, in the majority of cases, prevent any irritation from being excited by them; and it is probable they may remain in situ until they are completely decomposed and absorbed; an opinion which is strengthened by a case which came under the care of our friend and correspondent, Mr. Hennen*.

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* The case we refer to is contained in the following letter addressed to one of the Editors:

"My dear Sir, *London, January 29th,* 1816.

"On looking over a paper of mine, on 'Hospital Gangrene,' inserted in the 3d volume of the *Repository;* and referring more particularly to that part of it, where I announced what appeared to me to be a most important improvement on the ordinary mode of tying arteries, I find that I have made some small omissions, which I now beg to correct, and at the same time take the opportunity of submitting to you some further remarks, which the experience of the last campaign and conversation with attentive observers have enabled me to make. In talking of the ultimate fate of the silk ligatures, when cut close, I omitted to add the words 'of pus,' after stating the formation of 'a small particle' (p. 189); and I neglected altogether to add, 'that the ligatures frequently remained in without giving any uneasiness.'

"I shall now observe on this very interesting subject, that early in September 1813, my attention having been directed to the diminution of irritation in cases of amputation, the cutting short of the ligature was proposed by my friend Assistant Staff-Surgeon Hume, now at Paris with the Duke of Wellington; who informed me,

Mr. Lawrence follows his general observations on cutting ligatures short, by some valuable remarks "on amputation,

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he had been assured of the safety of that practice by a naval surgeon, who had tried it in America. I adopted the plan, and found it to answer so well, as to extend it to thirty-four cases, and report upon its utility to Dr. Charles Forbes, then principal medical officer at Bilbao, and through him to Sir James M'Grigor. About the same period I find that M. Delpech, of Montpellier, had begun the practice; and, on my retiring to Scotland in the autumn of 1814, I was informed by Dr. Maxwell, at eminent practitioner at Dumfries, that he had adopted the plan so far back as the year 1798; and has been ever since in the constant practice of it. At his recommendation also, it has been practised by more than one surgeon in that neighbourhood with unvarying success. Although, therefore, I believe I am the first British military surgeon who has publicly announced this plan, yet, I can by no means claim any praise as a discoverer. Like many other improvements, this probably will be found to have been arrived at by the separate and unconnected efforts of various men at distant points of time and place; as was the case in the invaluable improvement of the saving of skin after great operations in surgery. Perhaps, indeed, we may truly say, that no discovery in our profession, except that by the immortal Hervey, was ever perfected at once, and by one man.

"The value, indeed, of the short ligatures was so fully impressed on my mind in 1813, that in the campaign of Waterloo I adopted it almost universally at the Hospital of the Jesuits, over which I had the honour to preside, and with very great success. It has been suggested to me, that perhaps the silk, as being an animal substance, might be absorbed, and thus all irritation removed. On this subject I am not prepared to speak from actual experience. But I have dissected several stumps, where the little circle of silk has lain quietly at the ligamentous-like shrunk extremity of the artery in a small cyst, formed by a thickened cellular membrane; and this, for various periods from the healing of the stump up to three months after the operation. In some instances, as Mr. Guthrie has observed, small abscesses have formed, and the silk has floated out. In one case of a nobleman, my patient, who suffered dreadfully from an attack of typhus fever after the amputation of his arm, which rendered it necessary to throw open the whole face of the stump, and lay aside all thoughts of healing by the first intention, the ligatures, three in number, remained in from the 28th of June to the middle of September completely imbedded in granulations. I then sent him home, with the stump nearly healed, except one small spot over the end of the bone, from which a scale was about to exfoliate. He wrote me, in the latter end of October:—'My exfoliation has at last taken place; one ligature came away at the same time; and my stump is now perfectly well.'

"I had the honour and happiness of being assisted in several operations at Brussels, by my learned and liberal friend Professor

and the operation for aneurism." On the first subject he justly condemns the mode of covering the whole stump with adhesive straps, tight bandages, flannel rollers, &c. which only tend to produce heat and irritation, and prevent, instead of promoting, the adhesive process.

"The opposite treatment is required after amputation. The parts are to be gently brought in contact by strips of adhesive plaster, avoiding all force and strain, which are very painful and injurious, when the subsequent tumefaction comes on. Instead of carefully covering every part of the edges, I rather leave intervals between the straps, at which the blood may escape, if there should be slight oozing; with this view it is well to leave the inferior angle of the wound open. A small bit of lint spread with white cerate should be applied on the parts which are not covered by the adhesive plaster. A soft folded rag dipped in cold water, or in a saturnine lotion, and squeezed out, should then be laid over the stump, and be kept constantly damp; the limb itself being covered by a sheet only. It is hardly necessary to mention, that under some circumstances these precautions against too great action are not required; that the rags are to be used damp, but not dripping wet, so as to inundate the bed, and give the patient cold; and that it would be contrary to principle to chill the parts. Such appears to me the surest method of promoting adhesion, of keeping down inflammatory action, and thereby preventing spasms, secondary hæmorrhage, and protrusion of the bone."—p. 173.

With regard to the operation for aneurism, Mr. Lawrence observes—

"Whatever proceeding we may adopt for tying the artery, it is adviseable to expose it and convey the ligature round it with as little violence as possible: hence insulating the vessel, passing the finger under it, or taking it between the finger and thumb, are practices that should be reprobated.

"After dissecting down to the artery, a slight scratch or incision may be made, through the sheath, close to the side of the vessel. Then, with a narrow aneurism needle, nearly pointed at the end, and

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Thomson, of Edinburgh, in which the cutting short the ligatures was constantly adopted, and with the most complete success; and I have now, from an experience of more two years, no hesitation in recommending it, whatever our proposed after-treatment may be. A single thread well waxed (or at most two threads) is quite sufficient for any ligature, the vessel should be well drawn out from its sheath, and the ligature placed as high as possible. The natural retraction will in most instances carry the ligature out of sight; and, unless gangrene or excessive sloughing occur, it will frequently never more be heard of, and I verily believe never do harm.

"Since my arrival in this city, I have been gratified by the perusal of Mr. Lawrence's paper on this interesting subject which confirms my experience.—Believe me, dear Sir, your's, &c.

"J. Henman, Deputy-Inspector of Hospitals."

made as thin as its edge as it can be without cutting, a single silk ligature is to be conveyed round it, the point of the needle being kept in contact with the artery. A needle of this form makes its way easily through the cellular substance, and thus the vessel is detached only in the track of the instrument. I should recommend a middle-sized washed silk ligature, which should be drawn moderately tight; under which circumstances the thread may probably remain permanently on the vessel: at all events, ulceration or sloughing of the external coat will not occur so soon, as when greater force is used in drawing the knot. The ends of the ligature being cut off near the knot, the wound is to be united as a simple incision." —p. 198.

By four experiments performed upon dogs, it appears probable that silk ligatures employed in aneurism remain permanently on the vessel; and, reasoning upon these results, there can be little doubt of their superior advantages.

"If it shall be found," says Mr. Lawrence, "that these ligatures do not make their way through the external coat of the artery, the security against secondary hæmorrhage is complete. The adhesion of the cut sides of the vessel is usually sufficient; but this has given way in some cases after the separation of the ligature, and certainly will be the more likely to do so, in proportion as the ligature is detached earlier. Should it appear from more numerous investigations, that the vessel is ultimately completely divided by the thread; still the consolidation of the wound over the ligature will support and strengthen the adhesion of the arterial coats, and all the risk that could arise from external irritation is certainly obviated. With these views then I should advise the employment, in operating for aneurism, of the smallest twist in its hard state, or of a rather larger size washed; and I should not draw the ligature very tight, to avoid that pressure on the external coat, which might render necessary its subsequent separation.—pp. 202, 203.

These observations are confirmed by many interesting cases, any of which we regret we are prevented from extracting by the length to which our analysis of this paper has already extended. We shall, therefore, merely remark, that although the discovery of cutting ligatures short is certainly not solely due to Mr. Lawrence; yet the philosophical manner in which he has treated the question, and the promulgation of his experience of the importance of the practice, through the medium he has selected, are likely to be productive of the greatest advantages to operative surgery.

14. *Two Cases of the true Elephantiasis, or Lepra Arabum;* by W. Lawrence, Esq. F.R.S. and H. H. Southey, M.D. Physician to the Middlesex Hospital.

The first of these cases we have already brought before our readers*: the second is that of a young lady, 22 years of age,

* Vide *Repository*, vol. v. p. 141.

a native of Bombay, the daughter of an English officer by a Hindoo woman, who has been affected with the disease twelve years. The general symptoms are nearly the same as those described by authors who have written on this disease.

"A part of the uvula has disappeared. The voice is hoarse. Small tubercles have also formed on the tunica conjunctiva, one so near the edge of the transparent cornea as to have occasioned an opacity of that membrane, and the left eye is beginning to suffer in a similar manner. The trunk is not affected. All the ulcers have at different times been healed, but fresh tubercles constantly form, and go through the same process. According to the state of the general health, the existing ulcers either spread or put forth healthy granulations. The pulse is always quick, varying from 100 to 120. The appetite is weak and the digestive organs torpid, constant purgatives being required. The menstrual discharge is said to have been tolerably regular in point of time; but it was found by Mr. Ashburner to coagulate upon exposure to air. With regard to the libido inexplebilis, or the absence of sexual passion; it may be proper to state, that an offer of marriage was made to this unfortunate female within the last two years, which she was inclined to accept. I have not ascertained the presence of the femoral tumour, but I understand that Dr. Adams upon examination found this mark of the disease on the left thigh. The breasts have disappeared."—p. 219.

We must confess that we would not oppose to the authority of medical authors, the observations of others whose habits are likely to lead them to inquire less minutely into subjects of this nature; but at the same time we think it our duty to mention, that we have been informed by a Dutch gentleman, who possesses considerable property both in land and negroes in Demerara, that two negroes on his estate, who have long laboured under elephantiasis, are married, and are the fathers of several children.

The only remedies which appear to have produced even temporary advantage, in the case detailed by Dr. Southey, were combinations of pulvis antimonialis, with the blue pill: and, as local remedies, the alternation of poultices, with bandages of adhesive plaister.

15. *On some Affections of the Larynx which require the Operation of Bronchotomy;* by W. Lawrence, F.R.S., &c.

The best idea we can give of this valuable paper, is, to quote the conclusions which Mr. Lawrence has been led to form from his observations and inquiries.

"1. That the larynx is subject to affections differing considerably in the nature of their symptoms, and in their progress; but resembling each other in their ultimate effect, of obstructing the passage by which air is received into the chest.

"2. That the difficulty of breathing amounting to a sense of

suffocation, the sound produced by the passage of the air, the affection of the voice, which is either extremely hoarse or reduced to a scarcely audible whisper, in many cases pain of the throat, and difficulty of swallowing, together with the absence of symptoms indicating affection of any other organs, are the signs by which this obstruction may be recognized.

" 3. That the impeded state of respiration causes a violent constitutional disturbance in the acute cynanche laryngea, while it has a general debilitating influence in the more chronic forms of the disorder; and that these effects are in themselves fatal, after a certain time, even if the original obstruction be obviated.

" 4. That local and general bleeding, blisters, and the various internal means are usually inefficacious.

" 5. That the operation of bronchotomy, by providing an artificial opening for the air, produces complete relief, but, for the reasons mentioned under the third head, it is ineffectual, unless performed very early.

" 6. That the operation is free from danger, has been many times successfully performed, and has not in any instance produced unpleasant consequences.—pp. 242, 243.

With regard to the operation itself, our author regards the thyroid cartilage the least eligible situation for making the opening, chiefly from " the inconvenience in the case of angina laryngea, arising from the swoln and thickened state of the membrane which may actually impede the passage of the air." He conceives that the fittest part is between the thyroid and the cricoid cartilages; as the projection of the former serves " as a guide to the part which should be opened." The greatest difficulty, in performing the operation, arises from the rapid motions of the larynx; and this also frequently renders it impossible to keep a tube in the orifice with the view of preserving it open. When it can be retained, it should be " a short flattened canula, curved so as to correspond to the axis of the trachea."

The paper is illustrated by cases; and, like all the communications of its author, is remarkable for its perspicuity, and the closeness of the reasoning employed to demonstrate the propriety of the practice intended to be recommended.

16. *Experiments and Observations in order to ascertain the means employed by the Animal Œconomy in the Formation of Bone;* by John Howship, Esq.

The ample analysis, which we gave of this paper in our Half-Yearly Retrospect of Medical Science*, precludes the necessity of our again taking it under review in this place.

*(To be continued.)*

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* Vide *Repository*, vol. v. p. 5.

## II.

*An Account of Two successful Operations for restoring a lost Nose from the Integuments of the Forehead, in the Cases of Two Officers of His Majesty's Army: to which are prefixed Historical and Physiological Remarks on the Nasal Operation, including Descriptions of the Indian and Italian Methods.* By J. C. Carpue, Member of the Royal College of Surgeons, London, &c. 4to. pp. 102. Plates. London, 1816. Longman.

That "there is nothing new under the sun," is an observation, the truth of which has been confirmed by the experience of as many ages as have passed away since it was uttered. In the present instance, the operation, which is the subject of the Essay before us, is of very ancient origin; and, although it had most unaccountably fallen into disuse in Europe, yet it has long been, and still is, practised in India with the greatest success. As this fact was very generally known in this country, and the opportunities which British surgeons have enjoyed of seeing the operation performed in the East have been sufficiently numerous, it is matter of astonishment that it has been so long neglected; and, therefore, not the least part of Mr. Carpue's merit is the boldness with which he has stepped out of the beaten track. The alacrity with which he seized the opportunity of performing an operation, any knowledge he could have possessed of which he must have obtained only from his course of reading, is highly creditable to him as a surgeon; and the industry which he has displayed in tracing the operation to its origin, as far as books can afford any information on the subject, is no less creditable to him as an author.

It appears that the first mention of the operation, as being performed in Europe, is in a manuscript work of Peter Ranzano, Bishop of Lucera, intitled The Annals of the World. It is there stated, under the year 1442, that "one Branca, a Sicilian surgeon, practised a method of supplying deficiencies of the ears, lips, and nose;" and that the practice was continued by Branca's son. The method Branca and his son adopted, was to supply the deficiency either from the arm of the patient, "or by infixing upon the part the nose of a slave:" at least, so says Calentius, a Neapolitan poet, in a letter to Orpianus, a friend, whom he wished to undergo the operation.—"Be assured," adds he, "that if you come, you may go home again with as much nose as you please." The art is also stated by Gabriel Barri, in his work De Antiquitate et Sitû Calabriæ, to have been successively practised by three generations of

a family of the name of Boiani, physicians and surgeons in Tropea, previous to the year 1571.

The early medical writers who are quoted by Mr. Carpue as having mentioned and described this operation, are Alexander Benedictus, in his work De Anatomia, Venice, 1497; Gabriel Fallopius, in a tract intitled De Decoratione; Ambrose Paré; Andrew Vesalius, in the third book of his Chirurgia Magna, Venice, 1569; Stephen Gourmelen, the contemporary and adversary of Paré; and John Schenck, of Graffenberg, whose "first work, De Capite Humano, was printed at Bâle in 1584." But the writer of the greatest celebrity on this subject, was Gaspar Taliacozzo, or Taliacotius: and, for the benefit of such of our readers as may be unacquainted with the history of this person, we extract the account given of him by our author.

"Gaspar Taliacozzo, commonly called Taliacotius, was born at Bologna, in the year 1546, and died in the same city, in 1599, aged fifty-three years. He appears to have passed the whole, or nearly the whole, of his life in Bologna, where he filled, for many years, the chair of anatomy and medicine in its University, and where he enjoyed, even in his life-time, the highest reputation, both for his general attainments, and for his operations on the ears, lips, and nose; and, on the latter account, he was resorted to from different parts of Europe. At his death, the magistracy of Bologna honoured his memory with a statue, which they placed in the Anatomical Theatre of the University. This statue, which is said to be a good likeness of the person it represents, remains, or very lately did so, in full preservation, and has in its hand *a nose*, as an emblem of the art which he practised with so much fame and success. The faculty of Bologna, desirous, in their turn, to raise a monument, which might show their gratitude to a professor who had greatly contributed to the reputation of their schools, caused the following inscription to be engraved on a marble tablet, which they set up in the same place;

D. O. M.
GASPARI TALIACOZZO CIVI BONONIENSI,
Philosopho ac Medico ætatis suæ celeberrimo,
Cum universum humani corporis anatomen,
In doctissimorum virorum frequentissimô conventu
Publicè administratam,
Facundiâ, methodô ac doctrinâ, admirabili explicavit;
Ejusque incompertas adhuc partes in lucem prodidit,
Animi grati et perpetuæ memoriæ ergo,
Lect. Medicique PP.
Ordinariæ Anatomes ab illo administratæ Monumentum.

"But, though Taliacotius had long devoted himself, with singular zeal, to the operations in question; though, on that account, he had been resorted to from various parts of Europe; and though several contemporaries of the profession had referred to his operations in their works; it was not till the year 1587, after the appear-

ance of a tract, De Decoratione, collected from the lessons of Jerome Mercuriali, and published by Julius Mancini, that Taliacotius took up the pen himself, and, in his Epistola ad Hieronymum Mercurialem, de Naribus multò antè abscissis reficiendis, gave the world an account of his method, and promised a fuller exposition on the subject. In 1597, he redeemed this promise, by printing, in folio, at Venice, his work, De Curtorum Chirurgiâ per Insitionem, Libro duo; additis Cutis Traducis, Instrumentorum omnium, atque Deligationum, Iconibus at Tabulis. The same work was reprinted, in the following year, in octavo, at Frankfort."---pp. 7---9.

Of this singular work, which was comprised in two books, Mr. Carpue has given a rather detailed account. The first book is occupied with the theory of the operation, in describing the different kinds of skin, and other particulars connected with it: in the second, the various steps of the operation itself are pointed out.

"After particularizing," says our author, "the instruments and other apparatus required, he proceeds to the delineation or marking out of the skin on the arm, which was the first thing to be performed. A portion of integument, of sufficient size, and of a square or oblong shape, according to the general form required, being determined on and marked, an incision was made on each side, while the upper and lower ends remained untouched. This portion of integument was then dissected from the muscle beneath, and a piece of linen passed between the integument and the muscle; and, this done, the patient was kept quiet, and the wound preserved, with many precautions, from inflammation and hæmorrhage, for some days. Thus far, no notice was taken of the defective nose.

"The next stage of the operation was, to detach one of the ends of the graft, or flap of integument, from the arm. The flap had two surfaces, the upper or exterior, and under or interior; the first smooth and well coloured, the second red and uneven. The graft, when now cut at one of its ends, was therefore to be turned, so that the natural surface might be outermost. If the nose or upper lip was to be supplied, then the upper end of the graft, nearest the armpit, was cut; if the lower lip, then the lower end, nearest the elbow, was cut. To bring the flap into contact with the lip or nose, and preserve it in that situation, without detaching it, by both its ends, from the arm, was the next thing to be done. At this period of the operation, the patient put on a dress provided for the purpose, and by means of which it was possible so to bind his arm in contact with his face, as that it was no longer in his power to move the one nor the other. The patient having put on the dress, the surgeon proceeded to dissect away the integuments of the edges of the deficient parts. A model of the proposed end of the nose was to be made of paper, and this, when flattened, served as a pattern for shaping the graft, or flap of skin. The graft being now brought to the nose, by lifting the arm, to which, at one end, it adhered, and being found to fit, was fastened by ligatures. The stitches were at equal intervals in the nose, but both at smaller and unequal distances

in the graft. The graft, or flap of skin, having been thus applied to the defective nose, the patient was bound, so that he could not stir in any direction; and cloths dipt in a mixture of equal quantities of white of eggs and rose-water were applied for an hour and a half to the wound on the arm, to prevent inflammation. Tents, dipped in white of eggs, were introduced into the nostrils, and pledgets, dipped in like manner, laid upon the outside.

"The remainder of the second book describes the manner in which, at the end of twelve days, the patient's arm is to be released from his face, the graft being at length wholly cut away from the arm; the manner of modelling the septum; the plasters and bandages; the care to be taken, for some time, to defend the new nose from accidental injury; and what is peculiar in the treatment of defective ears and lips. At the close of the work is a series of twenty-two engravings on wood, in which are exhibited the instruments to be employed, the dress in which the patient was confined, and the various stages of the operations."—pp. 14—16.

A *fac simile* of the eighth figure in Taliacotius's work accompanies this description; and a number of writers contemporary with and subsequent to Taliacotius are quoted, as bearing testimony to his cures, or describing the operation as having been successfully performed by others.

Having thus traced the progress of the operation in Europe for restoring a nose, Mr. Carpue endeavours to point out the causes which led to its *neglect*. He shews pretty clearly, that except in one case mentioned by Hildanus as having occurred in Switzerland, the operation in Europe was never successfully performed out of Italy; and even the latter continental writers have treated it as theoretically possible, but not very likely to succeed in practice. As civilization also advanced, our author conceives, that the necessity for the operation would necessarily become less; owing to which, and failures in execution, practitioners might be deterred from performing the operation; "and would find it easier to ridicule and discredit the example of Taliacotius, than to follow it either with profit or reputation." With regard, however, to the necessity for the operation becoming less, there may be some doubts; for although noses ceased to be cut off, yet in the sixteenth century many must have been lost from the ravages which syphilis was then making in its progress through Europe. It must however be allowed, that the state of these patients was by no means favourable for replacing the lost member, had the operation even been attempted.

Our author regards as another cause of the disuse of the Taliacotian practice, the ridicule thrown upon the supporters of the doctrine of healing simple incised wounds by the medium of *adhesive inflammation*, owing to their tincturing their practice with the most absurd mysteries, ceremonies, and doctrines.

"They were called *Sympathetic Doctors*, and they taught the existence of sympathies between the most incongruous bodies in nature; accounting, in this manner, among other things, for their cures of wounds. These cures they pretended to effect by using ceremonies, over subjects between which and them there was no natural connection, and which were also at a greater or less distance from the spot. All this was juggle, like the *hocus-pocus* of ordinary conjurors; but, strange as it must seem, there was sound sense beneath; 'They chose out,' says a modern professional writer, 'fit cases of clean incised wounds; they put the lips neatly together; and very generally held them close by a sticking plaster, so well composed, and so firm, that they called it *emplastrum strictivum*; they took care never to undo the dressing till the wound was healed. Had they ventured to lay the lips of a wound simply together, and make them adhere, they would have been greatly abused for following the simple rules of nature. But they took credit for something like witchcraft; and they condescended to dress the axes and swords, that the wounds themselves might have leave to lie at rest till they healed*.'

"Among the most distinguished of the Sympathetics, was John Baptist Van Helmont. It was this writer who, in attempting to support his visions, by reciting, among other ridiculous tales, an account of a gentleman of Brussels, that had his nose restored, but who lost it again through the power of sympathy, mixed the name of Taliacotius with the follies of the Sympathetic School. The story which has been as idly commented upon, as it was originally told, is subjoined; and we must remember, that Van Helmont is defending those appearances which he imputes to sympathies, against the hostile imputation of Satanic influence.

"The following case, at least, will be acknowledged to be free from every illusion of Satan.—'A native of Brussels, who had lost his nose in battle, repaired to Tagliacozzo, a surgeon of Bologna, to have his nose restored; and, as he dreaded to have the incision made in his own arm, a labouring man was found, who, for a remuneration, suffered the nose to be taken from his arm. About thirteen months after his return to Brussels, the adscititious nose suddenly became cold, and, after a few days, dropped off, in a state of putrefaction. The cause of this unexpected occurrence having been investigated, it was discovered that at the same moment in which the nose grew cold, the labourer at Bologna expired. Persons still living at Brussels were eye-witnesses of this transaction.' Is it not a clear instance of the magnetic properties of the *munia*, that a nose, which, for so many months after adhesion, had enjoyed common life, sense, and the vegetative faculty, should thus suddenly die, on the opposite side of the Alps? I ask, what is there of superstition or phantasy in this case ‡?"—pp. 26—28.

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"* *Principles of Surgery*, Edinburgh, 4to. 1801, vol. i. 29.

"† *De Magnetica Vulnerum Naturali et Legitimâ Curatione, &c.* § 23. Parisiis, 1621.

The doctrines of Taliacotius were also misunderstood, and consequently misrepresented and neglected.

Mr. Carpue next proceeds to describe the Indian method of performing the operation, which is that which he has practised; and quotes the account of it published in the Gentleman's Magazine, 1794; and that of Pennant, given in his View of Hindostan, printed in 1798. The latter had stated it to be a "branch of European surgery," adopted by a Poonah artist; an assertion, which our author easily refutes, and advances sufficient evidence to prove, that it has been practised in India from "time immemorial." It is confined to a particular cast of Hindoos, who are koomas, or potters, or brick-makers; a circumstance which is explained by the fact, that the cast to which these trades are allotted are degraded Brahmins, or their descendants, who also follow the profession of *astrology* and *physic*. Their method of operating will be described when we examine our author's own cases.

With regard to the true origin of the operation, our author demonstrates that it was known long before the time of Branca; who received it from Calabria, into which it travelled probably from Greece or Arabia; and it may have found its way into the Grecian peninsula from the eastern parts of Asia. It is impossible correctly to trace its origin, either in Europe or in India; and it is probable, as our author observes, that it may be placed

"among the acquirements of the whole eastern and ancient world, the rays of whose light have successively, from age to age, penetrated the forests and recesses of Europe. It is probable, nevertheless, that while the general principles of the art were early and widely spread, the particular methods had their origin in particular and unconnected inventors. The express rejection, by Taliacotius, of the integuments of the forehead, for the material of the new nose, as being alien to the part, and not to be commodiously joined with it, forms a total separation from the Indian method; while his choice of those of the arm was in exact conformity with the Calabrian."—p. 52, 53.

Having finished the historical account of the origin of the operation, our author next enters into an examination of the physiological principles upon which its success depends. A great number of curious facts are related to prove that adhesion occurs in wounded surfaces, both in the animal and the vegetable kingdoms, even when the parts brought into contact belong to different species of animals and vegetables. As we conceive there is scarcely any individual in the profession to whom these facts are not familiar, we should regard the detailed manner in which they are related by our author as, at least, very unnecessary, were we not aware that the work is in-

tended rather for the general reader than the medical inquirer. The means by which this adhesion is effected is a more interesting topic of inquiry. The following are Mr. Carpue's opinions on that subject.

"Adhesive inflammation, or the inflammation which ministers to adhesion, is a consequence of violence done to the blood-vessels. The inflammation produces a change in the constitution of the blood.

"Blood, in the living animal, and in a healthful state, may be separated into three substances, forming one homogeneous fluid.

"If blood is drawn from a blood-vessel, and suffered to grow cold, it readily separates into two parts; a coagulum and a fluid; the first floating or swimming in the latter.

"The coagulum is called crassamentum; the fluid, serum.

"The crassamentum contains two parts of the blood; red globules, and the coagulating lymph. Wash away the red globules, and the coagulating lymph remains. The coagulating lymph is of a jelly-like substance, white and semi-transparent; and, on inspection, is found to be fibrous. The fibres are sensible to the galvanic influence.

"This separation of the three parts of the blood, which, while the blood is in a healthy state, is only to be artificially effected, follows naturally upon the inflammation produced by violence on the vessels.

"In a cut or incised wound, blood is at first effused in an undivided state; but, as soon as inflammation supervenes, a division takes place. Of the blood which is poured out from a wound, a portion remains between the lips; of this portion, in its divided state, the serum and red globules are absorbed, or escape, and only coagulating lymph is left. This lymph, which, from its glutinous substance, is an immediate cause of the holding together of the lips of the wound, and becomes presently the *means* or medium of permanent adhesion.

"INOSCULATION; OR, MANNER OF ADHESION.

"It remains only to speak of the *manner* in which adhesion is effected, through its *medium* of coagulating lymph. Much has been said and written on adhesive inflammation; bnt, in truth, we do not clearly understand what actually takes place in this extraordinary union. A part is divided; and being brought into contact, the cut surfaces are united by coagulating lymph. In this is the lymph separated from the red particles and serum, which has escaped between the interstices of the straps; or, does this serve as a bed for the vessels to shoot into, and inosculate? Or, does it become organized by vessels shooting into its substance? Or, is coagulating lymph poured out by the arteries, when the part is inflamed? Or, does galvanic attraction take place? By one of these or other means, a perfect adhesion and incorporation of parts is established. This, in the case of accidental, simple, incised, or cut wounds, is the cure by *the first intention:* Nature trying this *first*, and resorting to no other if she finds this sufficient; and human aid being no way beneficially applicable, except in assisting to bring the lips of the wound

into contact, and keeping them so. In the case of artificial incision, the cure is the same; and hence the practicability of causing the adhesion of a new nose to the face."—pp. 74—78.

Now although we do not materially object to the above explanation of the adhesion of living parts, yet, we cannot avoid remarking how prone we are to overlook the simplicity of Nature in all her operations, and to call to our assistance what we do not fully understand. Thus we can readily comprehend our author, when he talks of coaguluble lymph being thrown out by wounded surfaces, and forming the first vinculum of union, when they are placed in contact, until the anastomosing branches extend and form a perfect incorporation of parts; but we are perfectly at a loss to follow him, when he calls in the aid of "galvanic attraction," or to conceive by what means it can operate in producing the adhesion of divided surfaces.

But besides the *adhesive process*, as the new nose is formed only of the integuments of the forehead, granulations must be formed by the interior raw surface to fill up the void; thence the living processes to be promoted for securing the success of the nasal operation, are *adhesion*, and, to use the language of Taliacotiús, *resarciration*.

The first of the operations performed by Mr. Carpue was on an officer, who had lost his nose from the excessive use of mercury for the cure of hepatitis: the septum, the whole front of the nose, and a small portion of the alæ were gone, the nasal bones only remaining entire. Having assured himself that the parts were in a healthy state, our author first, following the Indian method, performed the operation several times on the dead subject, and with the advice and assistance of his professional friends, satisfied himself as to the best mode of proceeding.

"At length, on the 23d of October, accompanied by my friends, Messrs. Sawrey and Warren, and in the presence of Mr. Lamert, surgeon to His Majesty's thirtieth regiment of foot, who attended at the request of the patient, I proceeded to perform the operation.

"The patient's forehead was unusually low, and, on that account, some days previously to performing the operation, I removed the hair, by the roots, from the scalp; the integuments of that part being required to form the septum or base of the nose. This portion of the integuments to be dissected, was my only subject of uneasiness; my fear being, that the hair would grow, and prevent adhesion.

"Having well ascertained the size of the graft required, by means of a wax model, which I then flattened, and laid on the forehead, I drew the outline round it with red paint. I drew lines, also, on the sides, where I was to make the incision, and a line beneath for the septum. This done, the patient leaped upon a table, and, laying himself on his back, with his head supported by a pillow, refused to be held; saying, "I hope I shall behave like a man!" Nor did he make the smallest complaint during the operation.

"I now made an incision on the right, and then on the left; and dissected out a sufficient quantity of the face, with some muscular fibres of the Compressor Nares, and the Levator and Depressor Labii Superiores Alæque Nasi, to receive what was to be dissected from the forehead. I made a simple incision for receiving of the septum, considering, that the inner part of the integuments would certainly unite with the upper; and that if, when adhesion took place on the upper part of the lip, hairs should grow on the lower part of the integuments intended to form the septum, and the old and new parts, in consequence, should not unite, I could then, with greater safety, dissect the roots of the hair from the part, and bring it into contact with the lower part of the incision. My apprehensions, however, appeared, ultimately, to have been groundless; for both surfaces readily united, and an excellent septum was formed.

"The parts of the face being prepared for the reception of the new nose, I began that part of the operation which belongs to the forehead, by making an incision along the lines I had drawn. I then dissected the integuments, merely leaving the pericranium. The angular artery, on the left side, bled freely; but the loss of blood was very inconsiderable, and there was no occasion for tying the artery. The part which was dissected, and which hung down, became of a purple colour; and the patient, at this period, informed me, that his forehead felt extremely cold. I applied warm sponges, which afforded great relief, and which were continued during the remainder of the operation.

"My next steps were to make the *turn* of the dissected parts, and, introduced the septum into the incision of the upper lip, where I confined it by ligature. After this, I brought the integuments exactly into contact with the integuments on the left side, and fixed them also by two ligatures; and, then, I did the same on the right. I introduced lint to distend the nostrils, and applied straps of adhesive plaster to keep the integuments in contact. Every thing being thus done for the nose, my concluding care was to bring the edges of the integuments on the forehead, and between the eyebrows, as near together as possible, and keep them so by means of adhesive plaster.

"The patient, being put to bed, enjoyed some sleep. The room was kept very warm, and a flannel laid on the patient's head. In the night, there was hæmorrhage, but not in any quantity. Perfectly quiet the next day. Pulse as before the operation. Much inclination for food, but allowed only barley-water and warm jellies.

"On the third day, I took off the dressings. It will be supposed, that I felt exceedingly anxious on this occasion; for, though I had every reason to expect adhesion, it was possible that it had not taken place. The parts, however, adhered; and I had the high satisfaction to hear the officer, before alluded to, exclaim, from the foot of the bed, "My G—d, there *is* a nose!"

"Adhesion, agreeably with my most sanguine hopes, had taken place in every part; and the nose was of the same colour with the face. Meantime, it was perfectly flat, and rose and fell with every inspiration and expiration.

"The flatness of the nose alarmed me with a fear of its preserving a very unsightly appearance; and, to remedy this, I thought of procuring the air-bladder of a fish, which I proposed to introduce into the nose, and then inflate, with the design of raising the point of the nose. My apprehensions, however, on this, as in other parts of the cure, were groundless. Nature worked with me, and raised the nose by her own means.

"*Fourth day.* Cut away two ligatures, and dressed the forehead, which appeared in a very healthy state.

"*Fifth day.* Nose in a very good state. Granulations formed on the forehead. Endeavoured to bring the edges of the wound as much into contact as possible, by means of adhesive plaster.

"*Sixth Day.* All the ligatures removed. Patient now allowed meat, but particularly desired not to masticate.

"*Seventh day.* Patient, having a good appetite, ordered broiled kidneys, of which he ate one with impunity. In proceeding with the second, he suddenly felt a peculiar sensation, as if the new parts had separated from the old. I was immediately sent for. On examining the nose, I found, that on the left side, a small portion of the newly-united parts were divided. The greater part of the fissure was again made to unite; but a small part remained open, as it still does, though, with time, its filling up is not to be doubted." —pp. 84—88.

As the cure proceeded, the nose became very much enlarged, and œdematous; but by degrees this subsided, and it was left very flat. "Subsequently, however, granulations formed," the nose gradually rose, and assumed the natural shape; and we can add our testimony that it is now by no means an unsightly feature.

The second operation was performed on a very gallant officer, Captain Latham, of the 3d regiment of foot, whose nose was mutilated by the cut of a sabre in the battle of Albufera. The degree of mutilation in this case was not so considerable; but as the steps of the operation did not differ materially from those in the former case, we do not think it necessary to give any extracts from it.

Upon the whole, we regard this work as highly creditable to its author: and, independent of the professional interest which it is likely to excite by the revival of the nasal operation, it is capable of affording to every class of readers much curious information, and not a little amusement in the perusal.

The plates are tolerably well executed; and are certainly very essential for forming a correct notion of the various appearances in the states of the operation. One remark, however, we would make; which is applicable to most of the modern works ornamented with plates: that coloured plates, unless tinted with the hand, are less acceptable to a correct eye, than those in which the colour is given by the touch of the graver.

## III.

*A General Dispensatory, or Arrangement of the Pharmacopœias of London, Edinburgh, and Dublin; in which the Strength of various Preparations is expressed by Pharmaceutical Numbers; the different Synonyms of each Article, Doses, Qualities, Chemical Numbers, &c. are likewise added: and to the whole are prefixed some Observations upon the present State of the Nomenclature of Pharmacy.* By S. Rootsey, F.L.S. pp. 142, small 8vo. Bristol, 1815.

This work may be prodigiously clever, but we must confess it far above our comprehension. It has apparently two objects in view: first, an attempt to apply the doctrine of chemical numbers to Pharmacy; which, to say the least of it, is premature, and by no means likely to succeed; and secondly, an effort, no less futile, to bring into use what the author conceives to be "a more philosophical language of Pharmacy."

We will not insult the good sense of our readers, by endeavouring to prove the absurdity of an individual setting about such a reform. But our author thinks otherwise: He is a host—a very college in himself; and, in imitation of the *gravissimi viri* of another college, gravely sets about not only the reform of pharmaceutical language, as far as it regards the names of the substances and preparations employed as remedies, but, even, as it relates to the weights and measures by which these are dispensed. Thus taking the weights of the Romans as his standard, he proposes that those of the pharmaco-polist shall be as follows:

| | | |
|---|---|---|
| "Libra *æquipollet* uncias ..... | 12 grains | |
| Uncia ..... drachmas ..... | 8 | |
| Drachma ..... scrupulos ..... | 3 | |
| Scrupulos..... obolos .... ..... | 2 | |
| et Obolus..... grana.... ..... | 10" | |

The measures he would divide into "those which are large and separate, and those which are small and graduated upon a single glass;" and, therefore, still taking the Romans as his guide, he thinks the large measures should be,

| | | |
|---|---|---|
| "Congius *complet* | quartarios | 4 ounces |
| Quartarius..... | octarios | 2 |
| Octarius ..... | heminas | 2 |
| et Hemina ..... | acetabula | 2" |

the small, or those which can be determined by a graduated glass measure.

| | | | |
|---|---|---|---|
| " Cyathus | *complet* | fluiduncias | 2 |
| Fluiduncia | ..... | ligulas | 2 |
| Ligula | ..... | chemas | 2 |
| Chema | ..... | fluidrachmas | 2 |
| Fluidrachma | ..... | fluidrachmas | 2 |
| Fluiscrupulus | ..... | fluidobolos | 2 |
| et Fluidobolus | ..... | minima | 10" |

To dip, however, at once into the mysteries of the science, we extract the page which presented itself on our first opening the volume, and puzzled us not a little; and if any of our readers can comprehend it completely, even after the perusal of the introduction, and obtaining what may be considered as the key, we will confess ourselves to be fairly beaten.

| | | |
|---|---|---|
| " Ecphracteria, æ,[a] *(ob)* ..... | (300)[b] | D. L. |
| Vinum[c] *(dr. 2.)*— | | [d]D. L. |
| Elaterium, ii,[e] Poma[f] ..... | 72 | E. D. L. |
| Pomorum Fæcula[g] *v.* Elaterium *(gr. 2)* | | E. D. L. |
| Elemi[h], (ind.) Lachrym. *vide* Elemi[i] *(scr.)* | | D. L. |
| Unguentum ..... | 4½[k] | D. |
| compositum[l] | 3 | [m]L. |
| Emerrhiza, æ,[n] Radix *(scr.)*. ..... | 274 | E. D. L. |
| Radicis Trochisci .. .. | 20 | R. |
| Vinum *v.* Emerrhizites | 16 | E. D. L. |
| Emerrhizites, es,[o] (Vinum Emerrhizæ) | 16 | E. D. L. |
| Emeteria, æ,[p] *(gr. 2)* ..... | (436⅓)[q] | E. D. L. |
| Unguentum ..... ..... | 8 | R. |
| Vinum[r] ..... | 240[s] | E. L." |

" [a]Ferrum tartarizatum *L.* Ferri tartarum *D.* Tartarus martialis, et Mars solubilis, *Q.* I have named this from its ecphractic property as Stypteria is named from its styptic quality.—[b]Tartar 232⅓ Strictura (1½ at.) 67⅓—[c]Vinum chalybeatum et Vin. Ferri *Q.* Steel wine *A.*—[d]Ferri limat. *L.* fil. *D.* 1 Vini 16. [e]Momordica E. *E. W.* Cucumis agrestis et C. asininus *Q.* Wild cucumber *A.*—[f]E. Fructus *D*, E. fructus submaturus *E.*—[g]El. extractum *L.* El. succus spissatus *E.*—[h]Amyris Elemifera *W.* Def. 21.—[i]Elemni *Q.*—[k]El. 1 Ceræ alb. ½ Adipis 4.—[l]Balsamum Arcæi *Q.*—[m]El. 6 Olivi 1 Sevi 12 Pityinæ 5.—[n]Callicocca Ipecacuanha *Brotero Linn. tr.* 6 Cephaelis Ip. *Q.* Ipecacuanha *E. D. L.* Ipecacuania *A.* I have formed this word from *emeo* and *rhize*, implying that it is an emetic root.—[o]As the Ancients formed Abrotonites from Abrotonum I have formed this word from Emerrhiza.—[p]Tartris antimonii *E.* Antimonium tararizatum *Q.* Tartarum Antimoniatum *D.* Tartarus emeticus vel Tartarum emeticum *Q.* Emetic Tartar *A.* This term was used in the plural number by the Greeks for emetic medicines, but as Stypteria and Melanteria were applied as the names of Salts I have chosen this for the name of Emetic Tartar.—[q]Tartar 232⅓ Stibium protoxide (3 at.) 204.—[r]Liq. ant. t. *L.* Vinum Antimoniale *Q.* Antimonial Wine *A. v.* Def. 6.—[s]Emeteriæ *gr.* 1. (Vini *f. unc.* ½ E.) (Vini *f. scr.* 1 Aq. *f. scr.* 5. L.)

Our author indeed disdains the use of ordinary language on any occasion. Thus, in the introduction, we find such words as the following: "homonymy;—equivocality;— classicality;" &c. Some of his definitions, also, are peculiar to himself; as, for example, we are informed that "a gum, *gummi*, is an evaporated decoction;" "a gum resin, *gummi resina*, an evaporated tincture;" and "a resin, *resina*, an evaporated elixir." But it is unnecessary to follow him farther in his eccentricities; and instead of agreeing with him, that it is "rather advantageous that this department be left to individuals," we are now more than ever convinced, that the task of compiling the Pharmacopœia is happily placed in the hands of the College of Physicians, when we contemplate the chaos that would result, were the profession left to be regulated by such productions as the Bristol General Dispensatory.

## PART III.

## SELECTIONS.

### *On the Native Soil and the Commerce of the Rhubarb.*
By Dr. J. Rehman.

Having been attached to Count Golowkin's embassy to Pekin, I took advantage of a residence of some months at Kiachta, to collect all the information I could obtain relative to the rhubarb, and its place of growth. I was particularly indebted to M. Brenner, who has resided eleven years at Kiachta. I became also personally acquainted with the Chinese merchant whose family has had the contract for supplying the crown with rhubarb since 1772: he is named Abdraim, is a Bucharian by birth, although a subject of China, and for twenty years has come to Kiachta with the caravans which bring the rhubarb. His family has had the sole monopoly of the rhubarb trade for a great number of years; and it was his grandfather Adaïlla Abdusaloman, who concluded the treaty of commerce with General de Brill, then Governor of Irkoutsk.

This family purchased the monopoly from the government of China, and the trading in rhubarb is forbidden to the Chinese under the severest penalties. On one occasion an agent at Kiachta having urged the Bucharians to be less jealous of their privilege, as the rhubarb might be readily obtained from the Chinese, they were much offended with the remark, and

Bucharians convey it to Si-ning, where it is again cleaned and aired, then cut into small pieces, and each piece pierced through its centre. This hole is not made in the pieces of rhubarb for the purpose of stringing it, as has been believed; nor for putting it upon the horns of sheep, in order to dry it, as the lively fancy of a celebrated Professor of Botany at St. Petersburgh led him to imagine; but in virtue of the contract made with the Russians:—a necessary precaution; as some of the roots are occasionally decayed in the heart; and this circumstance cannot be ascertained in the entire pieces. Besides which, doubtful or suspected pieces are again examined at Kiachta, by means of an auger. The rhubarb having been thus prepared at Sining-fu, it is packed up in sacks made of camels' hair. A sack contains from five to six poods; and one is placed on each side of a camel, to be transported to Mäe-ma-tchin. An ordinary caravan of rhubarb consists of 30 or 40 camels.

The rhubarb generally arrives at Kiachta in autumn, about the month of October, and sometimes in spring; but it is not exposed until winter. The apothecary of the crown, who is attached to the rhubarb trade, ought to examine it before it is received, and to reject all that is not perfectly good. The rigour with which this examination is performed, has for some years past very much diminished the quantity brought to Kiachta; and rendered the Bucharians extremely discontented, as, by virtue of the contract, all which is rejected must be burnt. On this account, however, for several years past, much better rhubarb has been received.

The following are the different methods of ascertaining the quality of good rhubarb. The root should not be porous, but rather compact, and heavy; with a very marked, peculiar, disagreeable bitter taste: but the principal characteristic of good and true rhubarb, is a grittiness between the teeth when it is chewed, similar to that which is produced by sandy calcareous particles. Mr. Brenner supposes that this grittiness is occasioned by a species of selenite, which is found in the pores of the root; and on which, probably, its purgative property may depend. The pieces also differ in colour; but little importance is attached to that circumstance: and it appears to depend on the age of the root, or the particular nature of the soil in which it is found: the older it is, the deeper is the colour of the root.

The Bucharians, according to their treaty with the Russians, ought to furnish 1000 poods of rhubarb annually; but this part of the contract is not strictly observed.

As the commerce of Kiachta is a commerce of exchange, the value of the merchandize is determined on both parts by the quantity in the market. The crown, nevertheless, gives, accord-

ing to the treaty, always a determinate quantity of furs for a determinate quantity of rhubarb. Hence it happens that the price of rhubarb is not always the same. When the contract was made in 1772, furs were at a low price, and the pood of rhubarb cost the crown sixteen rubles only: but since furs have become scarcer, and consequently higher priced, the pood of rhubarb actually costs government from forty to sixty, and even eighty, rubles.

In my opinion, the contract ought to be renewed every third or fourth year, so as to balance the variations in the price of furs with that of rhubarb.

Before packing the rhubarb, in order to transport it to St. Petersburgh, it undergoes another cleaning at Kiachta; and each piece is struck with a small mallet, to detach from it any impurities or decayed parts. Cosacks are employed for this purpose, under the directions of the Apothecary Inspector. In the great store-house, where I saw this operation performed, the air is filled with a yellow powder, which is inhaled in the act of inspiration; at least the apothecary Brenner, who is afflicted with a chronic cough, attributes his complaint to the inspiration of the powder of the rhubarb, which is very possible.

With regard to the probability of procuring a plant or the seeds of the true rhubarb at Kiachta, I must observe that the difficulty is very great, although by perseverance it might be accomplished.

It cannot be expected that any of the Company of Bucharians of Sining-fu will ever bring the true plant; as it would be betraying their interest and risking the whole of their trade, on which they chiefly depend for existence. There is also too much mercantile spirit among the Chinese merchants who carry on their business at Kiachta, to hope that any of them will ever prove faithless.

It is related as a true story, at Kiachta, that an ancient commissary of rhubarb had obtained the seed of the true plant, which he sent to St. Petersburgh. Some experiments were made with it at Kiachta; but it only produced the wild rhubarb of Siberia. It was, therefore, evident that the purchaser was deceived. As the minister had given secret instructions on this subject, M. Brenner took every means to procure the true rhubarb plant; but in vain. He endeavoured to bribe the carriers and servants of the Bucharians; but they remained faithful to their employers. Sometimes they would promise it in the most positive manner, and on their return alledge that they had forgotten. If, in the course of conversation with the Bucharians, any observations were made on the seed of the plant, they

directly became serious: they do not even wish that a leaf of it should be procured, much less the seed. Some years ago a poor Chinese, who left Mäe-ma-tchin in order to return to the place of his nativity, offered to obtain for the agent a living plant of the true rhubarb, and demanded 500 rubles as his reward, under condition of being paid one half in advance. The apothecary Brenner, however, not wishing himself to run any hazard, and the chancellor of the frontier having no money of the crown at his disposal for such speculations, the proposition was not accepted.

But even if a sum of money was allotted by the Russian government sufficient to gain over the Chinese merchants, still the enterprise would be very precarious; as they might not return after getting part of the sum; or, if they returned, a spurious plant might be brought: and their treachery could not be punished, since the transaction would necessarily remain a secret. Thus the Chinese, who himself offered to procure the plant, expressly stipulated for secrecy; as his head would be the forfeit, if the act reached the ears either of the Bucharians or the Chinese government.

If our ambassador had got to Pekin, I might have obtained some information from the physicians regarding the native soil and habitude of the true rhubarb; but, in spite of all my attempts, I have not been able to learn any thing regarding it, neither from the priests of the religion of Lama, nor the Bunites, nor the Mongolians who inhabit the Russian territory on the frontiers of China. Although they profess the Thibetian religion, and read and comprehend their sacred books, yet they have no connection nor correspondence with Thibet.

Rhubarb is called *Dschum-sa* in Thibet; *Schara-modo*, which means yellow wood, in Mongolia; and *Hai-houng* in China.

The Mongolian Lamas use it medicinally; as do also the Chinese; but not so generally as it is used in Europe. The Chinese sometimes employ it to give an agreeable colour to spiritous liquors.

By a table appended to this Essay, the quantity of rhubarb purchased for the Russian government, between 1795 and 1806, was 4773 poods 4 pounds; which, after being purified by the second cleaning, left 4632 poods 18 pounds, the quantity sent to St. Petersburgh.

*Memoires de la Société Imperiale des Naturalistes de Moscou.* 1809. tom. ii. p. 126.

# PART IV.

## FOREIGN MEDICAL SCIENCE AND LITERATURE.

### PHYSIOLOGY, PRACTICE OF MEDICINE, AND SURGERY.

I.—*Observations on the Efficacy of Graphit in some cases of Herpes*, by PROFESSOR HORN, of Berlin.

"The Graphit, which has lately been recommended, particularly by Dr. Weinhold, in cases of herpetic ring-worm, has proved very beneficial in divers other forms of this complaint, which have occurred in our Institute.

"In some of these cases, where a great part of the face was covered with an herpetic eruption, and for the removal of which a variety of remedies had been tried without success, I found the Graphit very beneficial, after having been uninterruptedly applied for several weeks in the form of an ointment. One of the patients suffering under this complaint had had, at an earlier period, a venereal affection, which left pains in the bones that chiefly occurred during the night, and made it probable that the lues venerea had not been perfectly eradicated, and had some share in causing them. The internal administration of the Graphit, after being continued for several weeks, did not seem to have any sensible effect upon this cutaneous disorder.

"In two other cases of dry herpes, in which some small pustules appeared scattered here and there, filled with serum, and very itchy, it also was extremely useful. This attack had been preceded by scabies, which had been removed by the exhibition and outward application of sulphur. The herpetic eruption had for a considerable time been treated externally with sulphuric remedies, such as calcarea sulphurata, kali sulphuratum, zinc ointment, and solutions of sublimate, without any decisive effect. The inward remedies so often recommended in cases of this kind, such as decoctions of the cortex ulmi and laureolæ, juniper berries, and other diuretic ptisans, sensibly increased the secretion of urine, but contributed very little towards alleviating the local complaint. The ointment of Graphit was then repeatedly rubbed in every day, for about three weeks, on the sores, after which the herpes soon disappeared. Although the skin remained clear, yet an itching sensation was still felt, and the healed spots appeared a little redder

and rougher than the neighbouring parts. On a continued use of the Graphit ointment this condition of the skin ceased entirely, except a trifling redness in the places affected with the herpes, which continued for some time longer. After the removal of the disease, these individuals remained as healthy as they had been before its attack; a plain proof that this complaint might be considered as purely local, and removable by outward applications.

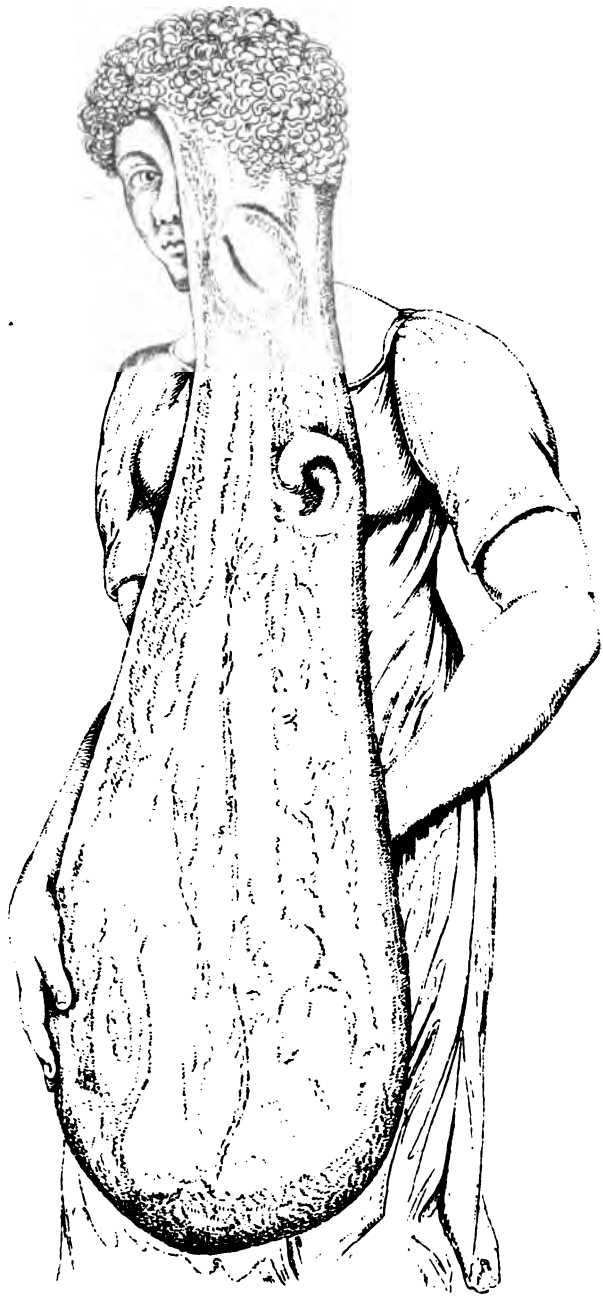
"In a fourth case, the eruption nearly approached the form of herpes scabiosus. Both legs were affected, and the eruption covered the upper and lower part of the thighs. The skin was thick and rough; and in a great many places small pustules, nearly of the form of those in scabies, which, in an increased degree of warmth, itched and burned, gave reason for thinking this complaint to be a species of itch, that might perhaps yield to those remedies which are successfully applied in that disease. But the result proved this opinion to be erroneous. The outward and inward applications of sulphur, sulphur and soap baths, the ointments of white precipitate of zinc and of the mineral acids, decoctions of tobacco, solutions of sal ammoniac and of common salt, together with a variety of inward remedies, did not cure this obstinate complaint. The Graphit ointment rubbed several times a day into the affected parts, proved more efficacious, and strikingly favourable. Divers blotches of considerable extent lost their redness and hardness, the scabious pustulation disappeared, the itching and burning sensation subsided, and the patient recovered so considerably, that, in all likelihood, he would have been completely cured by this method, if he had not voluntarily interrupted the cure by quitting the Institute.

"In cases of herpes humidus, in which the secretion of a lymphatic humour was very considerable, and scabs of great thickness formed, the application of the Graphit ointment could not be borne. It increased the pains, without alleviating the complaint, and the patients earnestly requested the use of it to be discontinued.

"It is well known, that herpes, although removed, is apt to return; and the greater part of the remedies much recommended do not deserve the praise so liberally bestowed upon them. I have seen two of these patients again, after an interval of five and seven months, but in neither of them had any symptoms of herpes re-appeared."

II.—The following Case of a *remarkable Tumour situated on the left side of the head of a woman, which displaced the eye and the ear, and descended to the knee*, is communicated in a letter to Dr. Mitchell, from Thomas William Roper, M.D. of

# Dr. ROPER'S CASE OF A REMARKABLE TUMOUR.



Charlestown, in South Carolina, dated the 9th of June, 1815*. (a plate)

"The disposition of all tumours to enlarge gradually is an interesting and curious fact; and notwithstanding the researches of the most ingenious men, no satisfactory explanation of that phenomenon has yet been offered. The general opinion regarding tumours is, that they are entirely new productions, foreign to the natural organization of the body, resulting from some morbid secretion and a peculiar unhealthy action: another opinion, however, maintains that the origin and growth of tumours depends on the same arterial action as that which contributes to the ordinary nutrition of the body. The second of these opinions is certainly the most correct. But how are the arterial actions, which take place in the system, and are maintained in the same regularity and uniformity, restrained by no law in tumours; and how is the volume of these tumours not arrested by any preserving principle? This is a problem of very difficult solution. But to return from speculative principles to practical subjects, my object is to describe to you an enormous and very extraordinary tumour, which was lately publicly exhibited in this place.

"The unfortunate subject of this disease is a woman of colour, born of healthy parents, at Newbury, a district of this state. She is about 35 or 36 years of age, robust, and apparently healthy. At two years of age, a soft, fleshy, detached excrescence appeared over the left parietal bone, not far from its inferior anterior angle. Its progress was at first slow, but always uniform; and at ten years of age it descended to the temporal fossa. From that period it became pendent, and its growth truly astonishing. The eye of the side on which it is situated, with all its integuments and attachments, was mechanically forced from the orbit by the weight of the fungous mass, occasioning very acute pain to the patient: the left ear descended in the same manner; while all the integuments of that side of the head and face were equally displaced. The mouth and the nostril were turned in a remarkable manner. At this time the mass appears as if suspended to the teguments of the frontal and parietal bones, with a second attachment to the chin and chest; and, when the woman stands erect, it falls as low as her knee. Measured in this position, it is three feet three inches long. Its inferior extremity or bulb, when not compressed, is two feet nine inches

* This paper was originally published in the New York Medical Repository; but, as we have not seen that work, we translate it from the *Journal de Medecine*, &c. par M. Leroux. tom. xxxiv. p. 393.

in circumference: immediately below the chin, it is a foot. The ear rests over the left breast, about nine inches distant from its natural position; and is enlarged in every direction. The meatus auditorius is still sufficiently apparent, and a very fœtid matter distils from it. It is reported, but I am doubtful of the truth of the statement, that a sound fourteen inches long has been introduced into it: the auditory nerve has long since lost all its excitability.

"The most remarkable feature in the case, in my opinion, is the descent of the eye, which is nearly five inches from the orbit. The eyelids, which are now directly longitudinal, are as large as those of a horse, and are generally closed. The glands of *Meibomius*, subject to be inflamed by slight causes, were affected, when I saw this woman, with violent psor-ophthalmia. The lids had a tremulous movement synchronous with the movements of the right eye. On separating them, the organization of the eye itself did not appear very materially altered; and notwithstanding the extraordinary extension of the optic nerve, the poor creature could still distinguish light from darkness: two years before, according to her own account, she could see distinctly with this eye. The vision of the right eye is perfect.

"The weight of this singular sarcomatous tumour has produced a singular alteration in the form of the lower jaw; its left half, from the symphysis being so depressed as to give it the form of an inverted *gamma*. The transverse direction of many of the teeth is consequently transposed; and when the finger is introduced into the mouth, a deep pouch is felt at its anterior part, which is always half-full of saliva:—from its extraordinary situation and its depth, it recalls, involuntarily, the idea of the pouch which hangs from the neck of the pelican.

"The tumour has a doughy feel; it is uniform on its surface, but appears to contain a great many irregular masses, united together by a cellular substance. Bundles of varicose veins, like ropes, of an inch in thickness, are easily distinguished running through it; and some of a smaller size on its surface spreading in different directions. This tumour has no tendency to inflammation or suppuration; it now produces no pain; but it is very inconvenient on account of its weight, and the patient is obliged to carry it in a bag. The teguments are moist and loose, but healthy in appearance: and although the distension is so considerable, I have not perceived any remarkable enlargement of the cutaneous papillæ. Small tufts of woolly hair have sprung out on various parts of the superior portion of the tumour. Its temperature is the same as the rest of the body, and its sensibility appears to be very great, as is easily perceived when flies or other insects light upon and irritate it.

"This woman appears to have a constitutional disposition to the generation of similar tumours; her body in general, and particularly the posterior part of the neck, being covered with a multitude of small excrescences of various dimensions; one of which is already some inches in length.

"It is also remarkable, that notwithstanding the great subtraction of blood which must necessarily be made from the general circulating mass for the nourishment of this tumour, there is no apparent debility. I was anxious to know if it had affected the uterus, and was informed that the menstrual discharge had always been sufficiently copious.

"The Annals of Surgery present few examples of tumours as monstrous as that which I have described. One, however, still more considerable in point of magnitude, is noticed as having occurred in a woman of the name of *Elenor Fitzgerald**. But in that case the tumour is described as having been the result of an accident; and it became so enormous, that it hung from the chest like an immense mass of intestines, an ell and a half long. It does not appear however that it altered the shape of the part which supported it; so that, upon the whole, that described by me appears to be the more remarkable of the two. I regard it as an excellent illustration of the propriety of not leaving incipient tumours to time and nature."

III.—*Dr. Thilenius*, in his *Medical and Surgical Observations*, relates the following singular cure of a Club-Foot.

"The daughter of a man in office had, from her most tender infancy such an ill-formed left foot, that she could only walk upon the outward rim of it, and the foot itself was always turned inwards. Bandages, laced boots, and other remedies had been promiscuously applied without any effect. By degrees the bones of the foot had yielded so much outwards, and the whole foot was bent inwards so far, and the tendo achilles was so much shortened, that she in a manner walked upon the upper part of the foot, thus turned upside down, which part not being by nature destined for walking upon, was of course very tender and sore; consequently with very great exertion only she was able to creep about the house.

"On the 26th of March, being then thirteen years of age, she submitted to the following operation: the tendo achilles was cut quite through, upon which, the heel that had been entirely drawn up, sunk down more than two inches, and she was able to put her foot flat upon the ground. The surgeon then kept the foot fixed in this situation by proper bandages, and

* *Bell's Principles of Surgery*, vol. iii.

in circumference: immediately below the chin, it is a foot. ear rests over the left breast, about nine inches distant fro natural position; and is enlarged in every direction. meatus auditorius is still sufficiently apparent, and a ver matter distils from it. It is reported, but I am doubtf truth of the statement, that a sound fourteen inches been introduced into it: the auditory nerve has lon all its excitability.

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*Portion.*—The gelatinous part D. a scaly mass, of a dirty-white swelling when put into

boiled for half an hour was a clear liquid, That compo- cold water, A solu- omea ly

ange iltered mercury ate of lead of the gela- dryness, leaves as no longer the s in it as readily as

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liar substance, insoluble in cold water, forming a thick jelly. This substance is boiling water, and loses its characteristic g in cold water; but it then becomes soluble d forms with it a mucilage.

*t.*—One part of gum tragacanth forms a thick h sixty parts of water; and with a hundred parts forms a liquid equal in consistence to a solution of ic with four parts of water. One part of gum traga- nd three hundred and sixty parts of water, still forms a aginous liquid.

*3d Result.*—The properties of the gelatinous part of m tragacanth, and its change after being boiled in water, now how easy it is to decompose vegetable substances at the temperature of boiling water; and that the effects of gum-tragacanth upon the animal economy can be modified by boiling water."

the cure went on so successfully, that, without any adverse accident, the large wound was soon closed, and skinned over. Scarcely an ounce of blood was lost during the operation.

"Emollient baths were then applied for some time; and the tendon rubbed with unguentum altheæ. The girl is now able to walk in a natural manner."

PHARMACEUTICAL CHEMISTRY.

IV.—*Experiments on Gum Tragacanth*, by *M. Bucholz.*—Gum tragacanth, which exudes from the Astragalus *creticus* of the islands of the Archipelago, has been frequently examined by chemists.

M. Cruikshank, who regarded it as an immediate principle of vegetables, detected in it azote and lime: and M. Gehlen suspected it to be composed of two distinct substances. But as a complete analysis of gum tragacanth was yet a desideratum, M. Bucholz has submitted it to a new examination.

"*Experiments.*—One hundred grains of powdered tragacanth were introduced into a flask, and agitated with sixty-four ounces of distilled water, at 12° Reaum. When the tragacanth had swoln to its full extent, which took place in four days, the transparent jelly that resulted, being diluted with twelve pounds of water, was left at rest in a temperature of from 10 to 12° Reaum. In four days more the gelatin of the tragacanth was deposited. It occupied a space equal to a fifth part of the fluid. The supernatant liquor was perfectly clear, and was drawn off with a syphon; and the residue washed several times with a fresh portion of water. By these washings the gelatin was very much reduced in bulk. It was put upon a cloth, in order to drain off all the moisture. The gelatin remaining in the filter being marked with the letter D. and put aside for a future examination, all the filtered liquids were mixed and evaporated to dryness in a silver vessel. The residue weighed 57 grains, which may be regarded as the gummy part of the tragacanth: the 43 grains deficient should be found in the gelatinous part.

"*Properties of the Gummy Portion.*—It is more or less of a brownish colour, according to the time the liquor is kept in contact with the air, previous to evaporation. It is nearly insipid, slightly empyreumatic, inodorous, brittle, easily pulverized, persistent in the atmosphere, insoluble in alcohol, and forms, with seven parts of water, a viscous liquor, which has more consistence than gum arabic dissolved in water in the same proportions. Its solution in water is rendered turbid by acetate of lead and muriate of tin. The nitrate of mercury at a *minimum* precipitates it of a blackish grey colour.

"*Properties of the Gelatinous Portion.*—The gelatinous part D. when dried in a gentle heat, leaves a scaly mass, of a dirty-white colour, easily reduced to powder, and swelling when put into cold water, as before.

"Four ounces of this gelatin were boiled for half an hour in sixteen ounces of water. The result was a clear liquid, which deposited no gelatinous matter when cold. That component of gum tragacanth, therefore, which swells in cold water, is soluble in boiling water. It is insoluble in alcohol. A solution of potass facilitates its solution; so that the liquor becomes clear in a short time. Ammonia and muriatic acid have nearly a similar effect.

"The gelatinous part of the tragacanth appears to change its nature by being dissolved in boiling water; for the filtered liquor is not rendered turbid either by the nitrate of mercury at a mininum, or by the muriate of tin. The acetate of lead quickly throws down a precipitate. The solution of the gelatinous part in boiling water, when evaporated to dryness, leaves a residue of a yellowish white colour, which has no longer the property of swelling in water, but dissolves in it as readily as gum arabic.

CONCLUSIONS.

"*1st. Result.*—100 parts of gum tragacanth contain the following components:

"1.—0.57 parts of a substance similar to gum arabic, very soluble in cold water; resembling extractive in its solution; and becoming brown by a continued ebullition in contact with atmospherical air.

"2.—0.43 of a peculiar substance, insoluble in cold water, but swelling in it and forming a thick jelly. This substance is completely soluble in boiling water, and loses its characteristic property of swelling in cold water; but it then becomes soluble in cold water, and forms with it a mucilage.

"*2d Result.*—One part of gum tragacanth forms a thick mucilage with sixty parts of water; and with a hundred parts of water it forms a liquid equal in consistence to a solution of gum arabic with four parts of water. One part of gum tragacanth, and three hundred and sixty parts of water, still form a mucilaginous liquid.

"*3d Result.*—The properties of the gelatinous part of gum tragacanth, and its change after being boiled in water, show how easy it is to decompose vegetable substances at the temperature of boiling water; and that the effects of gum-tragacanth upon the animal economy can be modified by boiling water."

V.—*On the Honey of Borax*, by *M. Bucholz.*—Those who have been in the habit of prescribing what is termed the *Honey of Borax* (Mel Boracis), must have frequently observed that the mixture, immediately after being made, possesses a greater degree of liquidity than the honey with which it is compounded. This circumstance has been endeavoured to be explained by M. Bucholz in a paper *on the Action of Borax upon Honey*, published in his *Pharmaceutical Almanack for* 1815.

"Some years ago M. Schiller and myself announced, that Borax has the property of augmenting the consistence of the mucilage of iceland liverwort and of salep. I have since observed that this salt produces a contrary effect upon honey.

"Having had occasion to use a mixture of three parts of honey and one of borax, for the cure of an aphthous affection of the mouth, I remarked, that although the borax was only grossly powdered, yet, it soon disappeared, the honey became more liquid, and in four days the mixture formed an almost transparent liquid. In order to examine the mutual action of the two substances, I made the following experiments:

"1*st Experiment.*—One part of finely-powdered borax was mixed with three parts of common dark-coloured honey. The borax was completely dissolved after two or three days, and the mixture became transparent and of the consistence of syrup. The experiment was repeated with yellow-coloured honey, and gave the same result.

"2*d Experiment.*—One part of rather coarsely-powdered borax being mixed with three parts of honey, and stirred now and then with a glass rod, produced the following phenomena. The thick congealed honey became more and more liquid, lost its consistence, and in eight-and-forty hours the borax had entirely disappeared. The remaining liquid was of a yellowish white colour, in which the honey could be tasted, but not the borax.

"3*d Experiment.*—To ascertain the action of honey upon borax. When the proportion of the latter was increased, equal parts of each were mixed together. In eight-and-forty hours the crystals of the borax had almost entirely disappeared, and the result was an uniform mass very similar to mucilage of gum-arabic.

"These facts evidently prove that honey has the property of rendering borax more soluble, and of combining with it, at least with one of its constituent parts, perhaps with the excess of soda; in this case it will act as an acid.

"After what has been stated, it might be thought that the

honey here acts the part of an acid, and neutralizes the soda. To determine this point, I dissolved four ounces of yellow honey in eight ounces of boiling water. After adding to the solution forty-five grains of powdered oyster-shells, it did not redden tincture of litmus. Upon cooling, it was filtered, to separate the wax, and then brought to the consistence of honey; and this had the same effect upon borax as before it was purified.

"*Examination of the Compound of Borax and Honey.*—The compound, formed with three parts of honey and one of borax, after having been exposed to a gentle heat for some time, left a floculent mass of a brownish yellow colour; and this upon cooling formed a yellow deliquescent powder, which in eight-and-forty hours had the appearance of turpentine. This powder mixed with three parts of alcohol, became viscous, by attracting water from the alcohol, which became of a yellow colour, and upon evaporation assumed the form of syrup, which tasted of both the borax and the honey.

"The solution of the compound of borax and honey neither browns turmeric paper, nor changes to green the syrup of violets; which proves that the borax is perfectly neutralized by the honey.

"*Properties of the Compound formed with equal Parts of Honey and Borax.*—Evaporated to dryness, the powder quickly attracted moisture from the air, and became liquid. The compound may be dissolved in three parts of cold water. This property, as well as its deliquescence, indicates that it is soluble in a still smaller portion of water. Its watery solution changes to green the syrup of violets, and slightly browns turmeric paper; which proves, that in this case the borax is in excess. The compound, with equal parts of honey and borax, after being dissolved in three parts of cold water, was mixed with acetic acid; but the taste of the honey did not return, and no crystals of boracic acid were precipitated. Muriatic acid, however, separated boracic acid from it in yellow crystals, without the taste of the honey returning.

"One part of honied borax was mixed with six parts of alcohol, sp. gr. 0·850. The mixture was then boiled for some minutes, and the liquid part having been poured off and evaporated in a porcelain vessel, one grain only of a yellow residue remained, similar to the compound employed. It results from this experiment, that honied borax does not contain honey in excess; and that the union of these two substances is so intimate, that the alcohol cannot decompose it.

"To discover if the honied borax is capable of crystallis-

ing, or if it were possible to separate from it the borax by crystallization, equal parts of borax and honey were dissolved in boiling water. The liquid was filtered when cold, and then evaporated in a silver vessel until a pellicle formed on its surface, when it was set aside to cool. In eight and forty hours the pellicle had disappeared; and the liquid, which was perfectly clear and of the consistence of syrup, had deposited no crystals, and none were formed after several days, although the liquid was mixed with a large proportion of water.

"This experiment completely proves, that the borax contracts a chemical union with the honey. If this opinion be not adopted, in what way can we explain how two ounces of borax, when mixed with honey, becomes soluble in five ounces of water; whilst borax requires for its solution, sixteen parts of water at 16° of Reaum?

CONCLUSIONS.

"1°. Honey combines chemically with borax, and forms with it a deliquescent salt, with entirely new properties*.

"2°. The highest point of saturation may be nearly obtained, by mixing equal parts of honey and borax.

"3°. Borax is soluble in sixteen parts of water at 18° of Reaum."

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* We have not yet had time to repeat the experiments of M. Bucholz; but we can state one fact, which leads us to suppose there is some mistake regarding the deliquescent property of the chemical compound produced by mixing borax and honey.

Three drachms of honey were mixed with the same quantity of borax; the mixture was at first considerably more fluid than the honey which had been used; but in 48 hours it again became viscid, and had lost nine grains of its weight. The surface was covered with a dry whitish pellicle, while the mixture beneath it possessed the pellucidness and general aspect of very thick mucilage of acacia gum. Neither the pellicle nor the pellucid part of the mixture tasted of honey. Another mixture being made with three drachms of honey, and one drachm of borax, lost, in forty-eight hours, four and a half grains in weight. It was not so pellucid as the former; but did not retain any of the taste of honey.

The explanation we would venture to offer of the above facts, is, that the borax, in combining chemically with the honey, or some portion of it, parts with its water of crystallization, which contributes to the fluidity of the mixture. This water, however, being afterwards evaporated, explains the loss of weight which the mixtures sustained.

As the subject is novel and of some interest, we have instituted a series of experiments on it, the results of which we shall lay before our readers.—EDITORS.

# PART V.

# MEDICAL AND PHYSICAL INTELLIGENCE.

## I.—SOCIETIES AND LECTURES.

LECTURE III.—*Of the Mineral Acids.* By Professor BRANDE, at Apothecaries' Hall, London.

HAVING now noticed such practical particulars concerning the vegetable acids, as I consider particularly worthy your notice, I proceed to the consideration of the mineral acids, of which three are principally used in medicine, viz. the sulphuric, the muriatic, and the nitric. The former stands in the list of the Materia Medica; nothing, therefore, is said of its preparation or properties; but it is of such extensive utility in the laboratory, is so constantly in the hands of the pharmaceutical chemist, and so much employed in medicine, that it is right the practitioner should know its sources and properties.

Paracelsus, Agricola, and Basil Valentine have each made mention of *Sulphuric Acid.* The latter alludes to and describes a preparation called Oleum Sulphuris per Campanam; and also mentions another preparation produced by burning sulphur, nitre, and antimony, under a bell: this must have produced sulphuric acid. Dr. Ward, inventor of a variety of quack medicines, prepared and sold considerable quantities of this article, under the name, "Oil of Vitriol by the Bell."

Sulphuric acid was for a long time exclusively prepared by the distillation of sulphate of iron, or green vitriol; and from its oleaginous appearance received the name of oil of vitriol.

The present method of making oil of vitriol, or sulphuric acid, consists in burning a mixture of 8 parts of sulphur and 1 of nitre in a large leaden chamber, the bottom of which is covered with water. The combustion is continued until the water becomes sufficiently acid; when it is withdrawn into leaden evaporators, where it is concentrated by evaporation, a process which ought to be completed in glass vessels, or, what would answer better if the enormous prime cost were not against it, a boiler of platina. When sulphur is burned *per se* in the atmosphere, it produces sulphurous acid, which by the help of the nitre is converted into sulphuric acid. The *rationale* of this process was first demonstrated by Sir H. Davy; and I should fail in rendering myself intelligible in describing it, without reference to a series of experiments which it would be necessary to exhibit before you.

Sulphuric acid cannot be exhibited in an insulated state; it always contains water as one of its essential components. It consists by weight of

| | | |
|---|---|---|
| | 15 | Sulphur, |
| | 22,5 | Oxygen, |
| | 8,5 | Water; |
| Or of | 30 | Sulphur, |
| | 45 | Oxygen, } = 92 Acid. |
| | 17 | Water, |

The specific gravity of sulphuric acid is 1,85. It is highly caustic and corrosive; but may be so far diluted with water as to be agreeably sour: in this state it is medicinally used as a tonic and astringent. The concentrated acid of commerce is apt to contain a very notable proportion of lead and potash: the former is thrown down upon diluting the acid---the latter remains, but is of no consequence medicinally speaking. In delicate chemical experiments, where very pure sulphuric acid is required, that of commerce must be re-distilled; a process not easily accomplished, on account of the high temperature required (between 5 and 600°), and of the agitation of the heavy liquid during ebullition; danger from this last effect is prevented by putting a few slips of platina into the acid in the retort, which causes it to boil quietly. As an astringent, sulphuric acid acts powerfully both directly and indirectly; hence its use in hæmorrhages. The infusion of roses furnishes the best vehicle.

*Muriatic Acid.*---In the last edition of the translation of the Pharmacopœia the process for muriatic acid given in 1809 is considerably changed and improved, and many errors in the remarks upon this process corrected or omitted. Referring to Mr. Phillips's Observations on the Pharmacopœia, it will be found whence these corrections and improvements are derived. I should refer more fully to the acute remarks and valuable information contained in that work, did I not believe that the author is again about to undertake the task of revising the incongruities of the present Pharmacopœia.

Muriatic acid seems originally to have been prepared by a process very like the present, by Glauber, to whom I referred, as a skilful chemist, in my last Lecture. Dr. Priestley ascertained that in this state the muriatic acid was combined with water, and that in its pure form it existed as an aeriform fluid, very much heavier than common air, and rapidly absorbed by water.

The manner in which sulphuric acid and muriate of soda act upon each other in the production of this acid, has only lately been understood. It was supposed that common salt consisted of muriatic acid and soda; and that the sulphuric acid combining with the latter formed sulphate of soda, and displaced the former.

A more correct explanation is this: Common salt is a compound of a metallic body called sodium, which united to oxygen forms soda, and of chlorine, which united to hydrogen forms muriatic acid. When acted upon by sulphuric acid, a series of complex attractions is brought into play. The water of the acid is decomposed; its oxygen unites to the sodium, and forms soda, which with the sulphuric

acid produces sulphate of soda, and its hydrogen enters into union with the chlorine, and forms muriatic acid. These and a number of similar explanations should find a place in the annotations of the translated Pharmacopœia. To obtain accurate notions of the rationale of every process should form a leading object with the student in pharmacy and with the operator in the laboratory.

Muriatic acid is neither copiously used in the pharmaceutical laboratory, nor in the practice of physic. In the Materia Medica it stands among the refrigerants; and, when sufficiently diluted and sweetened, forms a pleasant acid drink. In ulcerated sore-throat it forms a very useful gargle; it is more apt to purge than most other acids, a circumstance which either recommends or forbids its use according to the state of the case.

This acid should not be of a lower specific gravity than 1160. In trying its strength by its power of decomposing carbonate of lime, it should be diluted, and made to act upon a given weight of pure chalk, not upon a lump of limestone, as the College directs, which means any thing but the pure carbonate of lime. I may also add, that in making these experiments the acid should be weighed and not measured, with a view to obtain more accurately the required quantity.

*Nitric Acid.*—These directions are the same as those of the last Pharmacopœia; and the information in the notes remains nearly as it was, except that one or two of the most glaring inaccuracies have been corrected from Phillips's Examination. There can be no doubt that the quantity of sulphuric acid directed here is nearly twice as much as necessary; for 100 of nitre contain,

47 Potash,
53 Acid.

And sulphate of potash contains:

54 Potash,
46 Sulphuric Acid.

Therefore, to convert 47 parts of potash contained in the hundred of nitre into sulphate of potash, would require a fraction more than 40 parts of dry sulphuric acid. And, allowing for the water in oil of vitriol or liquid sulphuric acid, 50 parts, or half the weight of the nitre, would suffice.

For this impolitic waste of sulphuric acid, one reason only is assigned—that a colourless nitric acid is obtained. The colour of the acid, however, has nothing to do with its pharmaceutical or medicinal uses; it arises from nitrous gas dissolved in the acid, which may be separated by a few minutes boiling. Nitric acid, especially if procured as the College directs, will contain a trace of sulphuric acid, and often of muriatic acid, derived from impurities in the nitre, which therefore should always be carefully refined for the process. These do not interfere when in minute quantities with the medicinal uses of the acid, though in the laboratory sometimes inconvenient. They may be detected by muriate of barytes and nitrate of silver, and separated by distillation. If the nitric acid contain sulphuric acid, add nitrate of barytes as long as it causes a precipitate, and

re-distil; this is better than adding a fresh portion of nitre, as advised in the translation of the Pharmacopœia.

Besides the general uses of nitric acid in medicine as a refrigerant; &c. it has been used especially in syphilis. To say that it is capable of eradicating that disease, is as absurd as to assert that some of the symptoms are not beneficially influenced by it. In cases of sore throat from mercury, and in many of the protean effects which result from the use of that remedy upon the constitution jointly with those of the disease, the nitric acid has been found very beneficial, according to the high authority of Mr. Pearson.

I have thought it unnecessary to allude to the use of acids in destroying contagious and infectious matter, having already dwelt upon that subject in my preliminary observations on animal chemistry during the last season.

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Royal Society.—Jan. 25. Part of a long paper, by Dr. Wilson Phillips, was read; detailing the result of numerous experiments on the nerves of rabbits exposed to the action of the galvanic fluid. In some experiments the rabbits were first pithed, and then galvanism applied to ascertain how long and in what degree the vital functions could be revived. It was, however, candidly admitted, that no legitimate conclusions could be drawn from experiments made on animals under the circumstances of pain, disease, and derangement occasioned by previous wounds.

Linnean Society.—On Tuesday, December 5, the remainder of Dr. Acharius' paper, describing two new genera of lichens, was concluded.

A curious paper was likewise read, giving an account of the ancient inhabitants of Guadaloupe near the spot where the fossil human skeleton was found. Two different tribes existed, to whom the writer of the paper gives the name of Caribes and Galipees. About the year 1710 they quarrelled, and a battle was fought between them on the spot where the skeleton was found. The Galipees were routed, and disappeared in consequence, having no doubt emigrated. The author seems to conceive that the skeletons of the warriors slain in that battle were speedily encrusted with the calcareous sand of the place, and that this recently formed stone constitutes the rock in which the fossil skeleton was found.

On Tuesday, December 19, a paper was read endeavouring to explain the way in which the rock containing the Guadaloupe skeleton was agglutinated. It contained, likewise, an enumeration of the different species of shells and madrepores, the fragments of which occur in the rock.

At the same meeting a paper by Dr. Macbride of South Carolina, was read, giving an account of the fly-catching qualities of the leaves of the *Saracenia flava* and *adunca*. These leaves constitute a kind of tube with an operculum at the top. They contain a saccharine liquid which allures the insect. It lingers some time on the margin of the leaf, but at last ventures in and is drowned in the liquid, being unable to make its way up the tube, which is beset with hairs pointing downwards and preventing its escape. The

number of flies destroyed by falling into these leaves is very great. They are sometimes placed in rooms for the purpose of getting rid of flies.

On Tuesday, January 16, 1816, a paper by M. Richard, of the French Institute, was read, containing a description of two new species of American plants, the *xylopia sericea* and *oxandra laurifolia*.

MEDICAL BENEVOLENT SOCIETY.---It affords us peculiar satisfaction to announce the progressive increase of this truly professional and most laudable SOCIETY, which cannot fail ultimately of being universally supported.

The term for Subscribers to enter their names and pay their subscriptions or benefactions is enlarged to the 24th of the present month (March). The Treasurers opened the subscription books on Monday last, when Dr. LATHAM, the President, presented the liberal donation of £100, and Dr. HULL of Manchester £50, besides an annual subscription: the liberal intentions of many others of the Faculty were declared.

Mr. BEST, Surgeon-Apothecary, of Tavistock Street, Covent Garden, was appointed SECRETARY to the Society.

*University of Copenhagen.*---The great promotion which took place at the coronation of the King of Denmark has given rise to the following dissertations.

" 1°. Præcipua quædam momenta de hernia inguinali et crurali cum anatomicis explorationibus ceu fundamento subjectis, a *H. Gaertner*, Chirurgus legionarius et Memb. Soc. Reg. Edinb. cum 3 tab. aeneis.

" 2°. De ratione quæ inter azoticum aëris atmosphærici et respirationem internam intercedit. Diss. a *Braun*, Med. Cand.

" Quenam Cachexiæ sit in Nosologia et Pathologia locus juste assignandus. Diss. a *Hoerlitz*."

*New Frederik's University.*---According to the Catalogue of Lectures published by this University, in Norway, for the 5th Semester, beginning with August 1815, fifteen public teachers are appointed; amongst which are — three of medicine, Professors Skielderup, Sorensen, and Thulstrup:---one of Physic, Professor Keyser:---one of Natural History, Professor Rathke:---and one of Mineralogy, Professor Esmark.

## II.---PRIZE QUESTIONS.

The Royal Danish Society of Sciences has proposed the following Prize Questions, the answers to which must be sent in before the close of 1816:

" Non dubium est, quin ad cognitionem perfectiorem magis frugiferam fermentationis putridæ perveniretur, si magnæ hujus in Albumine commutationis ratio solerter indageretur, cum ex hoc principio fere omnes propinquiores corporum animalium partes constitutivæ existere videantur cum chemica ejus relatio multifari investigata sit, cumque tales ejusdem solutiones haberi possint

quarum pelluciditas observationes instituendas vehementer adjuvet. Societas igitur sequens Problema peritorum studiis commendat.

" Ita investigare fermentationem putridam Albuminis, at inde nostra putredine scientia perfectior evadere queat. Subjicit duas has questiones, quibus explicandis solutio problematis propositi ansam dare poterit.

" 1. Quatenus analogia quædam intercedit inter commutationes principi Carbonici in fermentatione plurium vegetabilium et principii azotici in putredine? et quænam sint impedimenta absolutæ harum fermentationum analogiæ?

" 2. Nonne sicut respectu fermentationis vinosæ et acidæ. ita etiam respectu putredines fermentum aliquid detur?"

### III.—SURGICAL.

*Bullet extracted from the Bladder.*—On Friday, the 23rd instant, at the York Hospital, Mr. Guthrie performed the lateral operation of lithotomy on a soldier who was wounded above the pubis by a rifle shot at the battle of Waterloo; and extracted the ball from the urinary bladder, where it had lodged, and ever since remained. It was flattened on one side, and very thickly incrusted with a friable calculus matter. This is the second case on record, of a bullet having lodged in the bladder of urine, and being afterwards extracted by an operation.

### IV.—CHEMICAL.

*Yeast.*—Professor *Dobereiner* has discovered some very remarkable qualities which yeast exhibits after it is repeatedly washed in water. On being treated with alcohol to separate it from the resin of the hops, it becomes, 1st, unfit for exciting fermentation in sugar; and, 2ndly, on being kept in a moderately moist condition, it becomes quite liquid when sugar is strewed upon it; and apparently combines with the sugar, forming a transparent honey, of a faint yellowish colour, which does not pass into fermentation, although kept for a long time in a warm place. On being mixed however with water, the mixture becomes first turbid, then assumes a milky appearance, the dregs settle, and it passes into the vinous fermentation.

*Violet-smelling Salt.*—Mr. Peter Henry Bruce states that this very singular circumstance exists in the neighbourhood of *Astrachan*. About from ten to twenty versts from that place, to the south of the Caspian Sea, not far from the river *Risliar*, shallow lakes of salt water are found in the desert, on the surface of which the sun, in summer, forms crusts of common salt (muriate of soda) about the thickness of the finger, as transparent as crystal, and exhaling the odour of violets. This fact proves how much we have yet to learn regarding odours as chemical signs.

### V.—PHYSIOLOGY.

*Fœtus Three Years in the Uterus.*—M. *Huzard*, jun. has presented to the Society of the Faculty of Medicine of Paris, the uterus of a ewe of the Spanish breed, which contained the fœtus of a well-formed and full-grown lamb, that had never been yeaned, and had remained in the mother for three years.

*Animal Heat.*—M. Gentil, in a dissertation lately published on this subject, gives the following as the results of actual experiments on different classes of animals.

In birds he found the temperature to be,

1. In the pigeon..... ..... ... $33\frac{1}{4}°$ Reaum.
2. In the cock..... .. ..... $33\frac{1}{4}°$
3. In the magpie ..... $33\frac{1}{4}°$

In the following herbiverous genera of the mamalia he found it to be,

1. In the sheep ..... ..... .. ..... $31\frac{1}{4}°$
2. In the rabbit .... ..... ..... $31\frac{3}{4}°$
3. In the mare ..... ..... ..... ... ... $31\frac{1}{2}°$
4. In the Hungarian horse .. ... ..... ... $30\frac{1}{2}°$
5. In the cow ..... ..... $30\frac{1}{2}°$
6. In the Indian hog ..... $30\frac{1}{2}°$

In the following carniverous genera,

1. In the dog .. ..... $31\frac{1}{2}°$
2. In the cat ..... .. ..... ..... ..... $29\frac{1}{4}°$

VI.—BOTANY.

We have to congratulate Science on the prospect of a Botanical and Zoological Establishment, worthy of the Metropolis of the British Empire, and under the highest patronage.

VII.—MISCELLANEOUS.

*Abstract of a "Bill for Enlarging the* CHARTER *of the Royal* COLLEGE *of* SURGEONS *in* LONDON, *and for making further Provisions for the better Practice of* SURGERY, *and for Preventing* MEN *from Practising* MIDWIFERY *who shall not be Members of the said College."*

AFTER the Preamble, the Bill recites several clauses of the Charter granted in the year 1800 (for which see the *Repository*, vol. i. p. 245).

1. As relating to the Charter granted by Charles the 1st, entitling the Corporation to all their estates, customs, immunities, jurisdictions, &c. and to make annual elections of Masters or Governors, *two* of whom were to be Professors of Surgery, and *ten* as Examiners.

2. That the Corporation being dissolved, "the Royal College of Surgeons of London" is appointed with certain powers; and that it may possess in lands, tenements, &c. not exceeding, together with its Hall, or Council-House, the yearly value of ONE THOUSAND POUNDS.

3. That *twenty-one* persons may be elected to be a Court of Assistants, of which number *ten* shall be appointed Examiners; and of which ten, *one* shall be Master and *two* be Governors; and it shall be lawful for the said Court of Assistants to make such byelaws, &c. for the regulation, government, &c. as shall seem requisite,

4. That the persons constituted Examiners, and the persons constituted Assistants, shall hold and enjoy their said offices during their natural lives.

5. That the Court of Assistants shall meet annually upon the first Thursday in July, or within one month thereafter, to elect a Master and two Governors, and such Examiners or Assistants as may have died during the year.

6. That the Master, one Governor, and ten Assistants shall constitute a Court of Assistants. There are other provisions respecting the election of officers.

7. That no Court of Examiners shall be held but in the presence of the Master, or of one of the Governors, and five of the Members of the said Court.

"And whereas it is expedient, that further provision should be made for the better Practice of Surgery; and for preventing MEN from practising Midwifery, who shall not be Members of the Royal College of Surgeons in London:"

BE IT ENACTED,

1. That the said Charter, and all and singular the privileges, gifts &c. possessions, real and personal, therein contained or mentioned (*except as hereafter altered or extended*), shall be, and the same is, and are hereby declared to be in full force and virtue, as if this Act had not been made.

AND BE IT FURTHER ENACTED,

2. That in lieu of a Master, Governors, and Court of Assistants, the government of the said College shall be in a *Council* of not more than 21; of whom one shall be *President*, and two others shall be *Vice-Presidents*, who are to be elected in the same manner, and enjoy the same privileges, and be subject to the same duties, as the late Court of Assistants.

3. That the Council have the power to make bye-laws, ordinances, &c. for the supervisal, examination, government, and correction of the Members of the said College; so as such bye-laws, &c. be not contrary to law.

4. Recites the mode of filling up all vacancies in the Court of Examiners or Council.

5. Either of the two principal Serjeant-Surgeons to His Majesty shall, if a Member of the Council, be appointed on the first vacancy a Member of the Court of Examiners.

6. The President, one Vice-President, and four of the Examiners, shall be sufficient to constitute a Court.

7. The College may possess lands, &c. not exceeding *one thousand pounds* a year, exclusive of the College and its appurtenances.

8. Members of the College entitled to practise, freely and without restraint, the art and science of Surgery throughout every part of His Majesty's dominions.

9. The College, and all persons who now are, or shall hereafter be admitted Members thereof, to exercise and enjoy, throughout ENGLAND and WALES, all the same privileges, &c. that the said College and its Members now exercise and enjoy.

10. After the passing of the Act, no person to practise as a Sur-

geon, *for lucre or profit*, in England or Wales, unless he has been admitted a Member of the College.

11. Every person practising, for lucre or profit, as a Surgeon after the passing of the Act, in any part of England or Wales, without being admitted a Member of the College, shall for every such offence forfeit and pay the sum of £30.

12. After the passing of the Act, no *Man* to practise Midwifery in any part of England or Wales, unless he be a Member of the College.

13. Every Man practising Midwifery in England or Wales, without first being admitted a Member of the College shall for every such offence forfeit and pay the sum of £30.

14. Provided, That nothing in the Act shall be taken or extend to any person practising Surgery or Midwifery at the time of the passing of this Act.

15. Provided, It shall not be lawful for the College to demand or receive, on the admission of any Member, any larger or greater sum of money as a fee upon such admission, than has heretofore been demanded and received for the same.

16. Provided, It shall not be lawful for the College to require and demand any larger or greater annual contribution of the Members of the College, than has heretofore been required or demanded; nor shall such annual contributions be required of any Member who shall reside, or practise Surgery beyond seven miles of the City of London.

17. That the provisions of an Act passed in the 25th of George the 2d, intitled "An Act for preventing the horrid crime of Murder," as far as the same is applicable to the late Corporation, shall be applied to the College.

18. That so much of an Act made in the 3d of King Henry the 8th, intitled "An Act for the better appointing Physicians and Surgeons," as far as relates to the practice of Surgery, and to persons exercising and practising the same, be repealed.

19. That Members of the College shall be freed and discharged, within England and Wales, from all manner of watch, ward, inquest, and jury, and shall not be liable to serve any county or parochial office or duty.

20. One half of all penalties to go to the King, and the other half to the College.

21. All penalties and forfeitures, by virtue of this Act or of any bye-law of the College imposed, shall be recovered with full costs of suit, by action or suit at law.

22. Provided, That nothing in this Act contained shall extend to the prejudice of the two Universities of Oxford or Cambridge, or to the College of Physicians in London.

23. Provided, That nothing in this Act extend to the prejudice of the Society of Apothecaries in the City of London.

24. No action or suit to be brought after six calendar months after the fact is committed; and every action or suit to be brought in the county where the matter in dispute shall have arisen, and not elsewhere.

25. The Act a Public Act.

*Fire-Damp.*—Sir H. Davy has communicated to the Royal Society (Jan. 11) some further Experiments on Fire-damp. Sir H. has advanced from discovery to discovery in the most effectual mode of preserving the lives of miners at the least possible expense. It appears from these experiments, that no new lamp or other apparatus is necessary to prevent explosions; that the lamps now in use, when covered with a wire-gauze screen, are not only perfectly sufficient to preserve the miners from all danger, but even may be used to consume the fire-damp by burning it to show them light. By surrounding the lamp with a fine wire-gauze screen, saturating the screen with fire-damp and inflaming the whole; the wire, if fine, and the apertures not exceeding $\frac{1}{50}$th of an inch, may be made red-hot without exploding the circumambient fire-damp. With a small portion of fire-damp in the screen the flame of the lamp is visible; but when a considerable portion is thrown into it, the whole becomes one entire flame. In this manner the carburetted hydrogen gas may be burned under the screen without the least danger of exploding the gas around it.

*Antiquities.*—Rome, Oct. 28.—There has just been found upon the Appenine Way an ancient sun-dial, drawn upon marble, with the names of the winds in Greek. It is exactly calculated for the latitude of Rome. According to local circumstances, it is concluded to be the discus belonging to Herodius Atticus, and described by Vitruvius.

*French Fire-Engine Pipes.*—The pipes of the engines used in France for extinguishing fire, are made of flax, and are found to answer the purpose much better than those made of leather. They are woven in the same manner as the wicks of patent lamps, and can be made of any length without a seam or joining. When the water runs a short time through the pipes, the flax swells and no water escapes, though the pressure be very great. They are more portable, not so liable to be out of repair, and do not cost by one half so much as the leather ones used in this country. This article is now manufactured in Glasgow.

## VIII.—LITERARY INTELLIGENCE.

Some weeks since we received Monsieur *Roux*'s long expected book, intitled, "*Relation d'un voyage fait à Londres en* 1814; *ou Parallele de la Chirurgie Angloise avec la Chirurgie Francoise.*" But matters of greater importance having claimed our immediate attention, obliges us to postpone the more general notice we intended to have given of this interesting work. However, as the subject naturally excites a great degree of curiosity amongst our professional readers, we insert, for the present, the following brief analytical account of its contents.

The author, in a long string of preliminary considerations, contends that there are but two schools of surgery in the world worthy of rivalling each other—the French and the English. He then enumerates the different discoveries and improvements which have origi-

nated from each; and very ingenuously settles the question of "*quis palmam ferat*" by a stop of interrogation, "à qui donc?" &c. M. *Roux* was well received in London by all the professional persons he had occasion to visit, and, he observes, he thought he could discover a certain degree of deference they paid to him—"comme à un qui avait fait quelque chose en chirurgie."

We informed our readers, when reviewing Mr. Cross's Sketches of the Medical Schools of Paris, of some of M. Roux's claims to the deference of our most eminent surgeons. Of these eminent men a list is given, with some remarks, and the titles of some of their works. This list is rather long; a circumstance which induces the author to inquire into the prevalent taste of surgery in London; for which, to a very great degree, he thinks he can account, from *men of the world*, and *even of haut rang, frequenting the schools of anatomy and surgery!* a discovery which, our readers will agree with us, is not the least wonderful of the many others of M. Roux.

The work is then divided into two parts; the first of which is devoted to the enumeration and description of the London hospitals, and in detailing the method pursued in our capital for teaching the art of surgery. Among the many interesting facts which the author communicates to his countrymen on the latter subject, none will more edify the English reader than that the study of the medical sciences is confined to the hospitals, and that *comparative anatomy* is the one which is taught with the most care and assiduity! The notorious deficiency of this study in England, we recently noticed and regretted.

The second part relates to the English doctrines and practice of surgery. It is subdivided into considerations on wounds, ulcers, fractures, dislocations, fungus hæmatodes, aneurisms, diseases of the eyes and of the urinary canal, lithotomy, herniæ, and amputation of the extremities. This part is by far the most elaborate and the most candid of the work.

After laying open to the French people such a vast body of evidence, M. Roux, acting as judge and jury, returns, in the most explicit and solemn manner, the following verdict:—"La Chirurgie Française est plus généralement bonne."

A Prospectus is circulated of a Journal of the Royal Institution, the first number of which will be published upon the 31st of March next; and it will be regularly continued upon the last days of March, June, September, and December. This Journal of the Sciences and Arts will contain:—A series of original communications upon subjects connected with Science and the Arts, and with Philosophical Literature in general: notices of scientific discoveries and inventions, and of experiments and researches carried on in the Institution: reviews and notices of scientific works: abstracts from the transactions of learned societies, and from domestic and foreign publications: accounts of the proceedings of the Members of the Royal Institution, and of the public and other courses of lectures.

Mr. J. Bedingfield, of Bristol, is about publishing "A Compendium of Medical Practice, illustrated by important cases, and practical, pathological, and physiological observations."

# A METEOROLOGICAL TABLE,

## *From the 21st of January to the 20th of February*, 1816,

### KEPT AT RICHMOND, YORKSHIRE.

230 Miles NW from London.

| D. | Barometer. Max. | Barometer. Min. | Therm. Max | Therm. Min. | Rain Gage. | Winds. | Weather. |
|---|---|---|---|---|---|---|---|
| 21 | 29 13 | 29 06 | 36 | 31 | M.Sn.63 | NE. | 1 Cloud.. 4 Rain.. |
| 22 | 29 16 | 29 14 | 37 | 34 | 07 | NE.. | 1 Cloud... 4 Rain. |
| 23 | 29 11 | 29 02 | 36 | 34 | | NE. | 1 Mist.... |
| 24 | 28 98 | 28 87 | 37 | 34 | 01 | E. | 1 Cloud... 4 Rain. |
| 25 | 28 98 | 28 87 | 37 | 34 | | NNE. | 1 Cloud... 4 Rain. |
| 26 | 29 43 | 29 22 | 37 | 33 | 44 | NbW.NE. | 1 Sh.of Snow. & Rain... |
| 27 | 29 72 | 29 65 | 36 | 30 | | NE.NW. | 1 Cd..4 Sh. of Sn. &St... |
| 28 | 29 90 | 29 84 | 33 | 24 | | NW. | 1 Sun... |
| 29 | 29 96 | 29 93 | 29 | 20 | | WbN. | 1 Sun.... |
| 30 | 29 91 | 29 77 | 28 | 20 | | SSW.SE. | 1 Cloud.. 2 Sun... |
| 31 | 29 64 | 29 50 | 29 | 22 | | SSW. | 1 Sun. 2 Cloud.. 4 St... |
| 1 | 29 39 | 29 27 | 29 | 24 | | WSW. | 1 Sun.,. 4 Cloud... |
| 2 | 29 10 | 29 — | 34 | 27 | M.Snow. | WSW. | 1 Sun.. 4 Rain. |
| 3 | 29 04 | 29 04 | 37 | 36 | 09 | SW. | 1 Sun.. 2 Rain. |
| 4 | 29 06 | 29 03 | 39 | 32 | | SW. | 1 Cloud.. 2 Sun.. |
| 5 | 29 03 | 29 03 | 38 | 32 | | WbN. | 1 Sun. 4 Snow. |
| 6 | 28 92 | 28 79 | 36 | 28 | | NbE.. | 1 Sun. 4 Sh. of Snow. |
| 7 | 29 10 | 28 99 | 30 | 21 | | NE. | 1 Sh. of Snow.. & Sun.. |
| 8 | 29 22 | 29 22 | 28 | 13 | | WbN. | 1 Sun... |
| 9 | 29 21 | 29 15 | 26 | 16 | | SWbS..SW... | 1 Sun.... |
| 10 | 29 40 | 29 17 | 31 | 27 | | SSW... | 1 Sun.. 3 Sh. of Snow. |
| 11 | 29 83 | 29 70 | 34 | 24 | | NW.. | 1 Sun.... |
| 12 | 29 85 | 29 77 | 32 | 25 | M.Snow. | SW.. | 1 Sun.... |
| 13 | 29 85 | 29 76 | 37 | 33 | 08 | WSW... | 1 Sun... |
| 14 | 29 92 | 29 80 | 43 | 34 | | W.. | 1 Sun.. 2 Cd.. 4 Moon.... |
| 15 | 29 58 | 29 43 | 43 | 36 | | W.. | 1 Sun.. 2 Cloud.. |
| 16 | 29 53 | 29 42 | 44 | 30 | | WbN... | 1 Sun... |
| 17 | 29 67 | 29 62 | 34 | 26 | | NW.. | 1 Sun.. 3 Sh. Sn. 4 St... |
| 18 | 29 51 | 29 44 | 40 | 29 | | WNW.. | 1 Sh. of Snow.. 3 Sun.. |
| 19 | 29 57 | 29 44 | 42 | 36 | | W.. | 1 Sun.. |
| 20 | 29 55 | 29 37 | 45 | 35 | | SW.... | 1 Sun.. 2 Rain. 4 St... |

## *Observations on Diseases at Richmond.*

The quantity of rain during the month of January, was one inch 64-100ths.

Catarrhal Fever and Pneumonia have been the most prevalent diseases this period. Hooping-Cough has become much more general, and Typhus has entirely disappeared. Cases of Amenorrhœa, Asthma, Colica, Convulsio, Diarrhœa, Enteritis, Epistaxis, Febris simplex, Gastrodynia, Icterus, Obstipatio, Ophthalmia, Otalgia, and Rheumatismus chronicus, have been under treatment.

# METEOROLOGICAL TABLE FOR LONDON,

***From the 20th of JANUARY, to the 19th of FEBRUARY, 1816,***

**By Messrs. HARRIS & Co.**

***Mathematical Instrument Makers, 50, High Holborn.***

| M. | D. | Therm. | | | Barom. | | Rain Guage | De Luc's Dry. | Hygrom. Damp. | | Winds. | | Atmo. | Variation. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 | 38 | 38 | 37 | 29.1 | 29.3 | Rain Guage Frozen and Burst. | | 10 | 9 | S | SE | Clo. | — | — |
| | 21 | 37 | 39 | 44 | 29.3 | 29 | | | 10 | 10 | SE | SE | Rain | — | — |
| | 22 | 42 | 44 | 42 | 29.2 | 29.1 | | | 12 | 12 | SE | SE | Rain | Clo. | — |
| | 23 | 40 | 43 | 39 | 29.3 | 29 | | | 10 | 12 | SSE | SE | Rain | Clo. | — |
| | 24 | 39 | 42 | 39 | 29 | 29.1 | | | 12 | 12 | SE | SE | Rain | Clo. | Rain |
| ◐ | 25 | 38 | 40 | 38 | 29 | 29.1 | | | 11 | 13 | ENE | ENE | Clo. | Rain | Clo. |
| | 26 | 39 | 42 | 40 | 29.2 | 29.1 | | | 12 | 11 | NNW | W | Clo. | — | — |
| | 27 | 39 | 40 | 38 | 29.3 | 29.2 | | | 11 | 9 | NNE | NNE | Clo. | — | — |
| | 28 | 33 | 36 | 33 | 30.1 | 30.2 | | | 9 | 9 | N | N | Clo. | Fine | Clo. |
| | 29 | 32 | 34 | 32 | 30.3 | 30.3 | | | 9 | 8 | N | SE | Clo. | Fine | Clo. |
| | 30 | 30 | 31 | 24 | 30.1 | 30.4 | | | 6 | 3 | SE | SSE | Clo. | Fine | — |
| | 31 | 26 | 32 | 27 | 30.3 | 30 | | | 3 | 5 | SSE | SE | Clo. | Fine | — |
| ● | 1 | 26 | 33 | 27 | 29.9 | 29.7 | | | 7 | 5 | SSE | SE | Fog | Fine | Clo. |
| | 2 | 27 | 35 | 40 | 29.9 | 29.5 | | | 7 | 15 | SSE | SE | Fog | — | Rain |
| | 3 | 42 | 48 | 43 | 29.3 | 29.5 | | | 15 | 30 | WSW | SW | Rain | — | — |
| | 4 | 42 | 47 | 53 | 29.1 | 29.1 | | | 25 | 21 | S | SW | Clo. | Rain | Fine |
| | 5 | 41 | 43 | 44 | 29.1 | 29.1 | | | 18 | 19 | W | SSW | Fog | — | — |
| | 6 | 43 | 42 | 38 | 29.1 | 28.9 | | | 17 | 20 | E | NE | Fog | Rain | — |
| | 7 | 43 | 41 | 29 | 28.9 | 29.2 | | | 13 | 10 | NE | NE | Snw | — | Fine |
| | 8 | 25 | 31 | 26 | 29.5 | 29.5 | | | 9 | 10 | NE | NE | Snw | Clo. | Fine |
| ◑ | 9 | 20 | 29 | 18 | 29.6 | 29.6 | | | 7 | 5 | NE | NE | Clo. | Fog | Fine |
| | 10 | 8 | 14 | 25 | 29.6 | 27.7 | | | 4 | 8 | N | SW | Fog | — | Fine |
| | 11 | 24 | 35 | 30 | 29.8 | 30 | | | 7 | 12 | WSW | SSW | Fine | — | — |
| | 12 | 25 | 30 | 26 | 30.3 | 30.3 | | | 8 | 10 | N | N | Fine | Fog | — |
| | 13 | 24 | 30 | 29 | 30.3 | 30.3 | | | 9 | 10 | N | NW | Fog | — | — |
| | 14 | 30 | 33 | 31 | 30.3 | 30.3 | | | 12 | 16 | WSW | WSW | Fog | Clo. | — |
| | 15 | 36 | 40 | 32 | 30.3 | 30.1 | | | 17 | 19 | WSW | WSW | Fog | — | Rain |
| ○ | 16 | 35 | 45 | 39 | 30 | 29.8 | | | 16 | 15 | WSW | WNW | Fog | Fine | — |
| | 17 | 34 | 36 | 34 | 29.8 | 29.9 | | | 10 | 5 | NW | N | Fine | — | — |
| | 18 | 28 | 34 | 39 | 30.1 | 29.8 | | | 4 | 14 | NW | WNW | Fine | — | Rain |
| | 19 | 38 | 43 | 43 | 29.9 | 30 | | | 13 | 16 | WNW | W | Clo. | — | — |

## BILL OF MORTALITY *from January 16, to February 20, 1816.*

| | | Jan. 23. | Jan. 30. | Feb. 6. | Feb. 13. | Feb. 20. | |
|---|---|---|---|---|---|---|---|
| CHRISTENED. | Males | 292 | 259 | 198 | 196 | 150 | |
| | Females | 276 | 259 | 181 | 202 | 141 | |
| | | 568 | 518 | 379 | 398 | 291 | Total, (five weeks) 2154. |
| BURIED | Males | 259 | 231 | 209 | 240 | 192 | |
| | Females | 258 | 234 | 212 | 237 | 212 | |
| | | 517 | 465 | 421 | 477 | 404 | Total, (five weeks) 2284. |
| OF WHOM HAVE DIED | Under 2 Years | 137 | 121 | 122 | 123 | 106 | |
| | Betw. 2 and 5 | 51 | 40 | 43 | 45 | 38 | |
| | 5 and 10 | 22 | 16 | 15 | 19 | 20 | |
| | 10 and 20 | 12 | 10 | 12 | 10 | 12 | |
| | 20 and 30 | 55 | 51 | 25 | 51 | 24 | |
| | 30 and 40 | 48 | 50 | 51 | 54 | 58 | |
| | 40 and 50 | 56 | 51 | 48 | 55 | 45 | |
| | 50 and 60 | 48 | 49 | 42 | 48 | 40 | |
| | 60 and 70 | 50 | 37 | 55 | 44 | 30 | |
| | 70 and 80 | 32 | 34 | 24 | 26 | 26 | |
| | 80 and 90 | 25 | 18 | 18 | 20 | 18 | |
| | 90 and 100 | 3 | 7 | 5 | 5 | 7 | |
| | 100 | | 1 | | 1 | | |
| SMALL POX | | 18 | 19 | 14 | 12 | 14 | |

Total of Small Pox...*(five weeks)*...77

# A METEOROLOGICAL TABLE,

## *From the 21st of January to the 20th of February,* 181

KEPT AT RICHMOND, YORKSHIRE,

230 Miles NW from London,

| D. | Barometer. Max. | | Barometer. Min. | | Therm. Max | Therm. Min. | Rain Gage. | Winds. | Wea |
|---|---|---|---|---|---|---|---|---|---|
| 21 | 29 | 13 | 29 | 06 | 36 | 31 | M.Sn.63 | NE. | 1 Cloud.. |
| 22 | 29 | 16 | 29 | 14 | 37 | 34 | 07 | NE.. | 1 Cloud. |
| 23 | 29 | 11 | 29 | 02 | 36 | 34 | | NE. | 1 Mist.. |
| 24 | 28 | 98 | 28 | 87 | 37 | 34 | 01 | E. | 1 Cloud |
| 25 | 28 | 98 | 28 | 87 | 37 | 34 | | NNE. | 1 Clou |
| 26 | 29 | 43 | 29 | 22 | 37 | 33 | 44 | NbW.NE. | 1 Sh.o |
| 27 | 29 | 72 | 29 | 65 | 36 | 30 | | NE.NW. | 1 Cd. |
| 28 | 29 | 90 | 29 | 84 | 33 | 24 | | NW. | 1 Su |
| 29 | 29 | 96 | 29 | 93 | 29 | 20 | | WbN. | 1 Su |
| 30 | 29 | 91 | 29 | 77 | 28 | 20 | | SSW.SE. | 1 C |
| 31 | 29 | 64 | 29 | 50 | 29 | 22 | | SSW. | 1 S |
| 1 | 29 | 39 | 29 | 27 | 29 | 24 | | WSW. | 1 S |
| 2 | 29 | 10 | 29 | — | 34 | 27 | M. Snow. | WSW. | 1 |
| 3 | 29 | 04 | 29 | 04 | 37 | 36 | 09 | SW. | 1 |
| 4 | 29 | 06 | 29 | 03 | 39 | 32 | | SW. | 1 |
| 5 | 29 | 03 | 29 | 03 | 38 | 32 | | WbN. | 1 |
| 6 | 28 | 92 | 28 | 79 | 36 | 28 | | NbE.. | |
| 7 | 29 | 10 | 28 | 99 | 30 | 21 | | NE. | |
| 8 | 29 | 22 | 29 | 22 | 28 | 13 | | WbN. | |
| 9 | 29 | 21 | 29 | 15 | 26 | 16 | | SWbS..SW.. | |
| 10 | 29 | 40 | 29 | 17 | 31 | 27 | | SSW... | |
| 11 | 29 | 83 | 29 | 70 | 34 | 24 | | NW.. | |
| 12 | 29 | 85 | 29 | 77 | 32 | 25 | M. Snow. | SW.. | |
| 13 | 29 | 85 | 29 | 76 | 37 | 33 | 08 | WSW... | |
| 14 | 29 | 92 | 29 | 80 | 43 | 34 | | W.. | |
| 15 | 29 | 58 | 29 | 43 | 43 | 36 | | W.. | |
| 16 | 29 | 53 | 29 | 42 | 44 | 30 | | WbN... | |
| 17 | 29 | 67 | 29 | 62 | 34 | 26 | | NW.. | |
| 18 | 29 | 51 | 29 | 44 | 40 | 29 | | WNW.. | |
| 19 | 29 | 57 | 29 | 44 | 42 | 36 | | W.. | |
| 20 | 29 | 55 | 29 | 37 | 45 | 35 | | SW.... | |

| | | |
|---|---|---|
| .......... | 23 | 2 |
| .......... | 17 | |
| alis.......... | 1 | |
| .......... | 1 | |
| itus.......... | 4 | |
| is.......... | 4 | |
| ratialis.......... | 2 | |
| .......... | 1 | 1 |
| .......... | 2 | |
| nahis.......... | 10 | 6 |
| rax.......... | 7 | |
| ndriasis.......... | 6 | |
| .......... | 21 | |
| .......... | 11 | |
| figurata.......... | 1 | |
| — erysipelatodes ... | 2 | |
| — scabida.......... | 2 | |
| .......... | 3 | |
| rhoea.......... | 20 | |
| simplex.......... | 2 | |
| .......... | 1 | |
| .......... | 10 | |
| cholia.......... | 4 | |
| rhagia.......... | 36 | 1 |
| .......... | 1 | |
| Infantiles*.......... | 114 | 8 |
| Biliosi*.......... | 95 | 1 |
| algia.......... | 3 | |
| itis.......... | 4 | |
| gia.......... | 1 | |
| tio.......... | 18 | |

## *Observations on Disease*

◆

THE quantity of rain during the m

100ths.

Catarrhal Fever and Pneumoni

diseases this period. Hooping-Cough

Typhus has entirely disappeared. C

Convulsio, Diarrhoea, Enteritis, E

Icterus, Obstipatio, Ophthalmia,

have been under treatment.

METEOROLOGICAL TABLE FOR LONDON

from the 20th of JANUARY, to the 19th of FEBRUARY, [illegible]

by [illegible] HARRIS & Co.

| DISEASES. | Total. | Fatal. |
|---|---|---|
| ...nicus.. | 60 | |
| ........ | 47 | |
| ... ...... | 53 | |
| .r.......... | 8 | |
| ...sa......... | 3 | |
| ............... | 4 | |
| ... ...... ...... | 2 | |
| .... ...... ...... | 16 | |
| ..... ...... ... ... | 16 | |
| ...................... | 9 | |
| ...us *confertus*....... | 1 | |
| ... *menti*............ | 2 | |
| ...pe....................... | 2 | |
| ...ailis... ....... ....... ... | 36 | |
| ...bes Mesenterica......... | 14 | 1 |
| ...ic Doloreux.................. | 2 | |
| Tympanites.................. | 1 | |
| Vaccinia...................... | 64 | |
| Varicella...... ................ | 17 | |
| Variola.......................... | 22 | 4 |
| Vermes................ ...... | 25 | |
| Vertigo...................... | 20 | |
| Urticaria *febrilis*............ | 8 | |
| ——— *evanida*........... | 1 | |
| Total of Cases ... ... ..... | 2644 | |
| Total of Deaths............ | ...... | 110 |

...o comprise those Disorders principally arising from dentition or ...o trivial to enter under any distinct heads; *Morbi Biliosi*, such ...ued *bilious*, but cannot be accurately classed.

*...rvations on Prevailing Diseases.*

...as presented every variety of atmospheric change of ...usceptible. The frost on the night of Friday the 9th ...ut happily did not continue four and twenty hours: ...been days that appeared to anticipate the genial spring. ...llen during the month.

...s, as may be expected, have corresponded with the changes ...ature; and yet the total number in the Register, reckoning ... of one of our most considerable Reporters, has not increased, ... mortality is somewhat higher.

*...xanthemata* are less frequent. *Rubeola* prevails in particular ...; and is rife at present at Hampstead. Again, the only cases of the Register are in that northern and exposed situation.

*...tussis* is more general; but less violent and fatal. *Catarrh* and ...onic affections have been less frequent.

...fantile diseases have been remarkably severe.

Among the fatal casualties in our practice, an incident occurred which, ...hough it cannot be imputed to the effect of disease, and therefore is not ...rictly relevant, may operate as a caution for practitioners to interpose ...heir advice, to prevent a too prevalent and dangerous custom in the nursing of infants. A very fine infant, about six months old, was suffocated in the night, by its fat and drowsy nurse, contrary to the express orders of her mistress, taking it into the bed to sleep with her.

## A REGISTER OF DISEASES

*Between JANUARY 20th, and FEBRUARY 19th,* 1816.

| DISEASES. | Total. | Fatal. | DISEASES. | Total. | Fatal. |
|---|---|---|---|---|---|
| Abortio | 20 | 1 | Erythema *lævæ* | 2 | |
| Abscessio | 17 | 1 | Febris *intermittent* | 28 | |
| Acne | 3 | | —— *catarrhalis* | 82 | |
| Amaurosis | 1 | | —— *Synocha* | 12 | |
| Amenorrhœa | 25 | | —— *Typhus mitior* | 13 | 1 |
| Anasarca | 29 | 7 | —— *Typhus gravior* | 1 | |
| Anorexia | 4 | | —— *Synochus* | 24 | 2 |
| Aphtha *lactentium* | 4 | | —— *remit. Infant* | 17 | 1 |
| —— *anginosa* | 1 | | Fistula | 6 | |
| Apoplexia | 15 | 10 | Fungus | 1 | |
| Ascites | 13 | 1 | Furunculus | 5 | |
| Asthénia | 20 | 1 | Gastritis | 2 | |
| Asthma | 145 | 17 | Gastrodynia | 26 | |
| Atrophia | 3 | 1 | Gonorrhœa | 31 | |
| Bronchitis *acuta* | 9 | 2 | Hæmatemesis | 1 | |
| —— *chronica* | 14 | 3 | Hæmoptöe | 17 | 1 |
| Bronchocele | 1 | | Hæmorrhois | 28 | |
| Calculus | 1 | | Hemiplegia | 2 | |
| Caligo | 1 | | Hepatalgia | 7 | |
| Cancer | 4 | | Hepatitis | 23 | 2 |
| Carbunculus | 1 | | Hernia | 17 | |
| Cardialgia | 8 | | —— *humorhalis* | 1 | |
| Catarrhus | 191 | | Herpes *Zoster* | 1 | |
| Cephalalgia | 39 | | —— *circinatus* | 4 | |
| Cephalæa | 5 | | —— *labialis* | 4 | |
| Chlorosis | 14 | | —— *præputialis* | 2 | |
| Chorea | 1 | | Hydatides | 1 | 1 |
| Cholera | 4 | | Hydrocele | 2 | |
| Colica | 21 | | Hydrocephalus | 10 | 6 |
| —— *Pictonum* | 3 | | Hydrothorax | 7 | |
| Convulsio | 15 | 3 | Hypochondriasis | 6 | |
| Cynanche *Tonsillaris* | 32 | | Hysteria | 21 | |
| —— *maligna* | 6 | | Icterus | 11 | |
| —— *Trachealis* | 2 | 1 | Impetigo *figurata* | 1 | |
| —— *Parotidea* | 14 | | —— *erysipelatodes* | 2 | |
| —— *Pharyngea* | 2 | | —— *scabida* | 2 | |
| —— *Larynged* | 1 | | Ischuria | 3 | |
| Diarrhœa | 67 | 1 | Leucorrhœa | 20 | |
| Dysenteria | 7 | 1 | Lichen *simplex* | 2 | |
| Dyspepsia | 122 | | Lithiasis | 1 | |
| Dyspnœa | 25 | | Mania | 10 | |
| Dysuria | 3 | | Melancholia | 4 | |
| Ecthyma | 3 | | Menorrhagia | 36 | 1 |
| Eczema | 4 | | Miliaria | 1 | |
| Eneuris | 2 | | Morbi *Infantiles** | 114 | 8 |
| Enteritis | 11 | 1 | —— *Biliosi** | 95 | 1 |
| Entrodynia | 10 | | Nephralgia | 3 | |
| Epilepsia | 8 | | Nephritis | 4 | |
| Epistaxis | 10 | | Neuralgia | 1 | |
| Erysipelas | 33 | 1 | Obstipatio | 18 | |

| DISEASES. | Total. | Fatal. | DISEASES. | Total. | Fatal. |
|---|---|---|---|---|---|
| Odontalgia | 17 | | Rheumatismus *chronicus* | 60 | |
| Ophthalmia | 54 | | Rubeola | 47 | |
| Otalgia | 2 | | Scabies | 53 | |
| Palpitatio | 9 | | Scarlatina *simplex* | 8 | |
| Paralysis | 14 | 1 | ——— *anginosa* | 3 | |
| Paronychia | 12 | | Scirrhus | 4 | |
| Peripneumonia | 14 | 1 | Scorbutus | 2 | |
| Peritonitis | 6 | | Scrofula | 16 | |
| Pernio | 37 | | Spasmi | 16 | |
| Pertussis | 58 | 1 | Strictura | 9 | |
| Phlegmasia *dolens* | 1 | | Strophulus *confertus* | 1 | |
| Phlogosis | 19 | | Sycosis *menti* | 2 | |
| Phrenitis | 3 | 1 | Syncope | 2 | |
| Phthisis *Pulmonalis* | 25 | 18 | Syphilis | 36 | |
| Plethora | 12 | | Tabes Mesenterica | 14 | 1 |
| Pleuritis | 31 | | Tic Doloreux | 2 | |
| Pleurodyne | 9 | | Tympanites | 1 | |
| Pneumonia | 61 | 7 | Vaccinia | 64 | |
| Podagra | 16 | | Varicella | 17 | |
| Porrigo *larvalis* | 3 | | Variola | 22 | 4 |
| ——— *scutulata* | 3 | | Vermes | 25 | |
| Prolapsus | 5 | | Vertigo | 20 | |
| Pruritigo *mitis* | 2 | | Urticaria *febrilis* | 8 | |
| Psuedo *syphilis* | 1 | | ——— *evanida* | 1 | |
| Psoriasis *gyrata* | 1 | | | | |
| ——— *inveterata* | 2 | | Total of Cases | 2644 | |
| Pyrosis | 4 | | | | |
| Rheumatismus *acutus* | 64 | | Total of Deaths | | 110 |

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct heads; *Morbi Biliosi*, such Complaints as are popularly termed *Bilious*, but cannot be accurately classed.

*Observations on Prevailing Diseases.*

The past month has presented every variety of atmospheric change of which the season is susceptible. The frost on the night of Friday the 9th was most intense; but happily did not continue four and twenty hours: since, there have been days that appeared to anticipate the genial spring. Much rain has fallen during the month.

The diseases, as may be expected, have corresponded with the changes of the temperature; and yet the total number in the Register, reckoning the deficiency of one of our most considerable Reporters, has not increased, although the mortality is somewhat higher.

The *Exanthemata* are less frequent. *Rubeola* prevails in particular parts only; and is rife at present at Hampstead. Again, the only cases of *Croup* in the Register are in that northern and exposed situation.

*Pertussis* is more general; but less violent and fatal. *Catarrh* and pneumonic affections have been less frequent.

Infantile diseases have been remarkably severe.

Among the fatal casualties in our practice, an incident occurred which, although it cannot be imputed to the effect of disease, and therefore is not strictly relevant, may operate as a caution for practitioners to interpose their advice, to prevent a too prevalent and dangerous custom in the nursing of infants. A very fine infant, about six months old, was suffocated in the night, by its fat and drowsy nurse, contrary to the express orders of her mistress, taking it into the bed to sleep with her.

Among the cases of *acute Rheumatism* several have been instances of rheumatic inflammation of the eye. It is difficult to point out the diagnostic characteristics of this species of rheumatism so as to distinguish it, at once, from ordinary ophthalmic inflammation. It may, however, in some degree, be ascertained from the redness and enlargement of the vessels more immediately surrounding the transparent cornea, which appears as if it were in a state of incipient opacity for the space of a line round its exterior edge; while the inflamed vessels appear like a zone adjoining this line, of a blueish tint: there is also a less copious secretion of tears than in the common inflammation of the conjunctiva. The attack is usually more sudden, often in the night, and the pain, instead of being confined altogether to the ball of the eye, surrounds the orbit, and sometimes extends to one half of the head: it abates towards morning, but comes on again in the evening at the same hour on which the primary attack occurred; and it is this periodical occurrence of pain which is the most striking feature of the disease. The mode in which we have treated it, is to exhibit an emetic at the approach of the paroxysm; then, after opening the bowels freely with calomel and a purgative draught, to administer as much bark, combined with oil of turpentine, as the stomach can bear. This plan, in two or three days, cures the disease, without any local application, except tepid water.

One of the fatal cases of *Anasarca* terminated by gangrene of both legs and one arm.

*Dysentery* caused death by profused hæmorrhage from the bowels.

The fatal case of *Menorrhagia* was occasioned by a scirrhus uterus, which had terminated in ulceration.

A fatal case of *Convulsio* was produced by *trichurides* in the cæcum, and *Ascarides lumbricoides* in the ileum.

*Examinationes post Mortem.*—1. A fatal case that occurred was discovered to have originated from *Hydatides* pressing on the brain.—2. *Bronchitis chronica* proved fatal to a woman aged 38. There was an extensive abscess between the membrane of the trachea and thyroid cartilage, which had ruptured into the trachea. The pus was very fetid, and the cartilage ulcerated.

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*Monthly Prices of* SUBSTANCES *employed in* PHARMACY.

| | | S. | D. | | | S. | D. |
|---|---|---|---|---|---|---|---|
| Acaciæ Gummi elect. | lb. | 4 | 0 | Balsamum Peruvianum | lb. | 30 | 0 |
| Acidum Citricum | | 32 | 0 | —— Tolutanum | | 22 | 0 |
| —— Benzoicum | unc. | 6 | 6 | Benzoinum elect. | | 14 | 0 |
| —— Sulphuricum | P. lb. | 0 | 9 | Calamina præparata | | 0 | 6 |
| —— Muriaticum | | 2 | 0 | Calumbæ Radix | | 3 | 6 |
| —— Nitricum | | 4 | 0 | Cambogia | | 10 | 0 |
| —— Acaticum | cong. | 5 | 0 | Camphora | | 8 | 6 |
| Alcohol | M. lb. | 5 | 0 | Canellæ Cortex | | 6 | 6 |
| Æther sulphuricus | | 10 | 6 | Cardamomi Semina opt. | lb. | 9 | 0 |
| —— rectificatus | | 12 | 0 | Cascarillæ Cortex | | 4 | 6 |
| Ærugo | lb. | 8 | 6 | Castoreum | unc. | 5 | 0 |
| Aloes spicata extractum | | 7 | 6 | Catechu Extractum | lb. | 3 | 6 |
| — vulgaris extractum | | 5 | 6 | Cetaceum | | 3 | 6 |
| Althæa Radix | | 1 | 6 | Cera alba | | 4 | 0 |
| Alumen | | 0 | 6 | —— flava | | 3 | 6 |
| Ammoniæ Murias | | 2 | 6 | Cinchonæ cordifoliæ Cortex (yellow) | | 6 | 6 |
| —— Subcarbonas | | 4 | 0 | —— lancifoliæ Cortex (quilled) | | 10 | 6 |
| Amygdalæ dulces | | 4 | 6 | —— oblongifoliæ Cortex (red) | | 16 | 0 |
| Ammoniacum (Gutt.) | | 14 | 0 | Cinnamomi Cortex | | 20 | 0 |
| —— (Lump.) | | 8 | 0 | Coccus (Cochinella) | unc. | 3 | 6 |
| Anthemidis Flores | | 2 | 3 | Colocynthidis Pulpa | lb. | 38 | 6 |
| Antimonii oxydum | | 7 | 0 | Copaiba | | 6 | 6 |
| —— sulphuretum | | 1 | 3 | Colchici Radix | | 3 | 6 |
| Antimonium Tartarizatum | | 7 | 0 | Croci stigmata | unc. | 6 | 6 |
| Arsenici Oxydum | | 1 | 6 | Cupri sulphas | lb. | 1 | 2 |
| Assafœtida Gummi-resina | lb. | 6 | 0 | Cuprum ammoniatum | | 14 | 6 |
| Aurantii Cortex | | 4 | 6 | Cusparia Cortex | | 4 | 0 |
| Argenti Nitras | unc. | 7 | 6 | Cynoctonum monstrosum | | 10 | 6 |

| | | S. | D. |
|---|---|---|---|
| Confectio Aurantiorum | | 3 | 6 |
| —— Opii | | 6 | 0 |
| —— Rosæ caninæ | | 2 | 0 |
| —— Rosæ gallicæ | | 2 | 3 |
| —— Sennæ | | 1 | 8 |
| Emplastrum Lyttæ | | 7 | 6 |
| —— Hydrargyri | | 5 | 6 |
| Extractum Belladonnæ | unc. | 1 | 6 |
| —— Cinchonæ | | 2 | 6 |
| —— Cinchonæ resinosum | | 5 | 0 |
| —— Colocynthidis | | 4 | 0 |
| —— Colocynthidis comp. | | 2 | 0 |
| —— Conii | | 0 | 9 |
| —— Elaterii | | 24 | 0 |
| —— Gentianæ | | 0 | 6 |
| —— Glycyrrhizæ | lb. | 5 | 0 |
| —— Hæmatoxyli | unc. | 0 | 9 |
| —— Humuli | | 0 | 9 |
| —— Hyoscami | unc. | 1 | 6 |
| —— Jalapæ | 2s. 0d. Res. | 3 | 6 |
| —— Opii | | 3 | 6 |
| —— Papaveris | | 1 | 6 |
| —— Rhei | | 3 | 0 |
| —— Sarsaparillæ | | 1 | 6 |
| —— Taraxaci | | 0 | 9 |
| Ferri subcarbonas | lb. | 1 | 4 |
| — sulphas | | 1 | 6 |
| Ferrum ammoniatum | | 3 | 6 |
| — tartarizatum | | 5 | 6 |
| Galbani Gummi-resina | | 12 | 0 |
| Gentianæ Radix elect | | 1 | 6 |
| Guaiaci resina | | 7 | 0 |
| Hydrargyrum purificatum | | 6 | 0 |
| —— præcipitatum album | | 9 | 0 |
| —— cum creta | | 6 | 6 |
| Hydrargyri Oxymurias | unc. | 0 | 9 |
| —— Submurias | | 0 | 9 |
| —— Nitrico-Oxydum | | 0 | 9 |
| —— Oxydum Cinereum | | 1 | 6 |
| —— Oxydum rubrum | | 6 | 0 |
| —— Sulphuretum nigrum | | 0 | 4 |
| —— —— rubrum | | 0 | 9 |
| Hellebori nigri Radix | lb. | 2 | 6 |
| Ipecacuanhæ Radix | | 18 | 0 |
| —— Pulvis | | 20 | 0 |
| Jalapæ Radix | | 7 | 0 |
| —— Pulvis | | 8 | 0 |
| Kino | | 12 | 0 |
| Liquor Plumbi subacetatis | M. lb. | 1 | 8 |
| — Ammoniæ | | 3 | 6 |
| — Potassæ | | 1 | 6 |
| Linimentum Camphoræ comp. | | 6 | 6 |
| —— saponis comp. | | 4 | 6 |
| Lichen | lb. | 1 | 4 |
| Lyttæ | | 14 | 0 |
| Magnesia | | 10 | 6 |
| Magnesiæ Carbonas | | 4 | 0 |
| —— Sulphas, opt. | | 1 | 4 |
| Manna optima | | 8 | 0 |
| — communis | | 5 | 6 |
| Moschus pod, (30s.) | in gr. unc. | 40 | 0 |
| Mastiche | lb. | 7 | 0 |
| Myristicæ Nuclei | | 20 | 0 |
| Myrrha elect. | | 9 | 0 |
| Olibanum | | 4 | 6 |
| Opoponacis gummi resina | | 30 | 0 |
| Opium (Turkey) | | 40 | 0 |
| Opium (East India) | | 41 | 0 |
| Oleum Æthereum | oz. | 2 | 0 |
| — Amygdalarum | lb. | 4 | 8 |
| — Anisi | unc. | 3 | 0 |
| — Anthemidis | | 6 | 6 |
| — Cassiæ | | 9 | 0 |
| — Caryophilli | | 6 | 6 |
| — Cajuputi | | 8 | 0 |
| — Carui | | 1 | 6 |
| — Juniperi Ang. | | 5 | 0 |
| — Lavandulæ | | 5 | 0 |
| — Lini | cong. | 6 | 6 |
| — Menthæ piperitæ | unc. | 4 | 0 |
| — Menthæ viridis Ang. | | 4 | 6 |
| Oleum Pimentæ | unc. | 6 | 0 |
| — Ricini optim. | (per bottle) | 12 | 0 |
| — Rosmarini | unc. | 1 | 0 |
| — Succini 2s. 4d. | —— rect. | 5 | 0 |
| — Sulphuratum | P. lb. | 1 | 0 |
| — Terebinthinæ | | 1 | 4 |
| — —— rectificatum | | 2 | 6 |
| Olivæ Oleum | cong. | 22 | 0 |
| — Oleum secundum | | 14 | 6 |
| Papaveris Capsulæ | (per 100) | 3 | 6 |
| Plumbi subcarbonas | lb. | 0 | 8 |
| — Superacetas | | 2 | 6 |
| — Oxydum semi-vitreum | | 0 | 9 |
| Potassa Fusa | unc. | 1 | 4 |
| — cum Calce | | 0 | 6 |
| Potassæ Nitras | lb. | 1 | 6 |
| — Acetas | | 10 | 0 |
| — Carbonas | | 4 | 6 |
| — Supercarbonas | | 1 | 3 |
| — Sulphas | | 1 | 6 |
| — Sulphuretum | | 2 | 6 |
| — Supersulphas | | 0 | 9 |
| — Tartras | | 3 | 6 |
| — Supertartras | | 1 | 10 |
| Pilulæ Hydrargyri | unc. | 0 | 9 |
| Pulvis Antimonialis | | 0 | 9 |
| — Contrayervæ comp. | | 0 | 6 |
| — Tragacanthæ comp. | | 0 | 6 |
| Resina Flava | lb. | 0 | 5 |
| Rhei Radix (Russia) | | 42 | 0 |
| —— (East India) opt. | | 18 | 0 |
| Rosæ petala | | 14 | 0 |
| Sapo (Spanish) | | 3 | 0 |
| Sarsaparillæ Radix | | 8 | 0 |
| Scammoneæ Gummi-Resina | unc | 3 | 6 |
| Scillæ Radix siccat, opt. | lb. | 4 | 6 |
| Senegæ Radix | | 4 | 0 |
| Sennæ Folia | | 6 | 6 |
| Serpentariæ Radix | | 8 | 0 |
| Simaroubæ Cortex | | 6 | 0 |
| Sodæ subboras | | 4 | 0 |
| — Sulphas | | 0 | 8 |
| — Carbonas | | 6 | 6 |
| — Subcarbonas | | 2 | 0 |
| — —— exsiccata | | 5 | 0 |
| Soda tartarizata | | 2 | 6 |
| Spongia usta | | 30 | 0 |
| Spiritus Ammoniæ | M. lb. | 5 | 0 |
| — —— aromaticus | | 5 | 0 |
| — —— fœtidus | | 5 | 0 |
| — —— succinatus | | 5 | 6 |
| — Cinnamomi | | 3 | 0 |
| — Lavendulæ | | 6 | 0 |
| — Myristicæ | | 3 | 6 |
| — Pimentæ | | 3 | 6 |
| — Rosmarini | | 5 | 0 |
| — Ætheris Aromaticus | | 7 | 6 |
| — —— Nitrici | | 5 | 0 |
| — —— Sulphurici | | 7 | 0 |
| — —— Compositus | | 7 | 6 |
| — Vini rectificatus | cong. | 27 | 0 |
| Syrupus Papaveris | lb. | 2 | 0 |
| Sulphur | | 0 | 9 |
| — Sublimatum | | 1 | 0 |
| — Lotum | | 1 | 2 |
| — Præcipitatum | | 1 | 4 |
| Tamarindi Pulpa opt. | | 2 | 0 |
| Terebinthina Vulgaris | | 0 | 10 |
| —— Canadensis | | 8 | 6 |
| —— Chia | | 14 | 0 |
| Tinct. Ferri muriatis | | 5 | 6 |
| Tragacantha Gummi, elect. | | 9 | 0 |
| Valerianæ Radix | | 1 | 8 |
| Veratri Radix | | 2 | 6 |
| Unguentum Hydrargyri fortius | | 5 | 6 |
| —— —— Nitratis | | 2 | 8 |
| —— —— Nitrico-oxydi | | 3 | 0 |
| Uvæ Ursi Folia | | 3 | 6 |
| Zinci Oxydum | | 7 | 0 |
| — Sulphas purif. | | 3 | 0 |
| Zingiberis Radix opt. | | 4 | 0 |

Prices of New Phials per Gross.——8 oz. 70s.—6 oz. 56s.—4 oz. 47s.—3 oz. 42s.—2 oz. and 1½ oz. 36s.—1 oz. 30s.—half oz. 24s.——The London Glassmen allow 10 per Cent. ready money.——The Manufacturers in the Country, where all Phials are made, allow 27½ discount, at three months credit, (carriage free,) to London.

Prices of second-hand Phials cleaned, and sorted.——8 oz. 48s.—6 oz. 44s.—4 oz. 38s. 3oz. 30s.—2 oz. and all below this size, 25s.—Three months credit.

NOTICES OF LECTURES.

Mr. A. T. Thomson will commence his usual Course of Lectures on Botany and Phytology early in May.

Mr. Fox, Surgeon-Dentist, Argyll Street, will commence his Lectures on the Structure and Diseases of the Teeth, on Friday, March 1st, at half-past five in the evening, in the Medical Theatre, Guy's Hospital.

## MONTHLY CATALOGUE OF BOOKS.

A System of Materia Medica and Pharmacy, including Translations of the Edinburgh, London, and Dublin Pharmacopœias. By John Murray, M.D. Third Edition. 2 vols. 8vo. Longman & Co.

The Edinburgh New Dispensatory. By Andrew Duncan, jun. M.D. The Eighth Edition. 8vo. Longman & Co.

A General System of Toxicology, or a Treatise on Poisons drawn from the Mineral, Vegetable, and Animal Kingdoms, considered as to their Relations with Physiology, Pathology, and Medical Jurisprudence. By M. P. Orfila, M.D. Translated from the French. Vol. 1. Part 2. 8vo. Cox and Son.

Dr. Cullen's Practice of Physic, with Notes explanatory and practical. By Robert John Thornton, M.D. 12mo. Cox and Son.

A Compendium of Anatomy, Human and Comparative; intended principally for the Use of Students. In 4 Volumes, with Plates. Sixth Edition, enlarged and improved. By Andrew Fyfe.

An Epitome of Juridical or Forensic Medicine; for the Use of Medical Men, Coroners, and Barristers. By George Edward Male, M.D. 8vo. Underwood.

Practical Observations on the Cure of Wounds and Ulcers on the Legs, without Rest; illustrated with Cases. By Thomas Whately. Second Edition. 8vo. Callow.

## NOTICES TO CORRESPONDENTS.

*We have to acknowledge the receipt of Communications from* Dr. Bartley, Mr. Shaw *(with a Drawing)*, Mr. Newman, Mr. Rogers, Obstetricus, &c.

Dr. Frazer's *Letter shall be attended to.*

This Publication, by application to the Clerks of the General Post Office, London; or, if previously ordered, of the Post Masters, British or Foreign, will be sent to any of the British Colonies or Foreign Countries, upon the same terms as other Periodical Works.

*Communications intended for insertion in the subsequent Number should be sent before the 12th of the month; and should be addressed (free of expence) to* Mr. Shury, *Printer, 7, Berwick Street, Soho; by whom Books for the Review Department, Articles of Intelligence, &c. &c. will also be received.*

THE

LONDON MEDICAL

REPOSITORY.

No. 28. APRIL 1, 1816. VOL. V.

## PART I.

## ORIGINAL COMMUNICATIONS.

### I.

*A General View of the Diseases usually occurring in Boys during the Period between Infancy and Puberty, deduced from Observation of those in Christ's Hospital.* By HENRY FIELD, Member of the Society of Apothecaries, London, and Apothecary to Christ's Hospital.

*(Continued from page 68.)*

| TABLE OF DISEASES. | 1815. Dec. | 1816. Jan. | 1816. Feb. |
|---|---|---|---|
| 1 Cynanche tonsillaris | 3 | 1 | 1 |
| 2 ——— trachealis | 3 | ..... | 1 |
| 3 ——— parotidæa | ..... | ..... | 9 |
| 4 Febris Synochus | 2 | ..... | ..... |
| 5 Tussis Catarrhalis | 2 | 3 | 1 |
| 6 Pneumonia | ..... | 1 | ..... |
| 7 Pleurodyne | ..... | ..... | 1 |
| 8 Odontalgia Catarrhalis | ..... | 1 | ..... |
| 9 Nausea, Gastrodynia vel Diarrhœa | 5 | 5 | 6 |
| 10 Obstipatio | ..... | ..... | 2 |
| 11 Variola | 1 | 1 | ..... |
| 12 Varicella | 4 | ..... | ..... |
| 13 Rheumatismus chronicus | 1 | 1 | ..... |
| 14 Urticaria | ..... | ..... | 1 |
| 15 Oris interni exulceratio | 1 | ..... | ..... |
| 16 Prurigo mitis | 2 | ..... | 1 |
| Totals | 24 | 13 | 23 |

Though the winter season has not been remarkable for severity of cold, yet, it has been unusually variable and unsettled. Notwithstanding which circumstance, our boys have been so extremely healthy, that I can scarcely recollect such a period at any season of the year equally free from disease. This is more worthy of observation, as the general state of health in the metropolis has been directly the reverse of it; the town having been uncommonly sickly, attended with a very considerable degree of mortality.

The influence of different seasons and states of the atmosphere upon different periods of life was never more strikingly displayed than in the period before us. While the infantile age has been remarkably oppressed by disease, principally of the pneumonic kind, followed by an uncommon fatality; that between infancy and puberty has enjoyed a degree of health much exceeding what is usual in the winter months.

With the exception of one case of pneumonia, no severe disease of any kind has occurred with us. It is almost superfluous to add, that no fatality has taken place. About the middle of February several cases of cynanche parotidæa made their appearance nearly on the same day. The infectious nature of this malady rendered it necessary to take every proper precaution to prevent its extension, which was accordingly done; and, as far as the short time now elapsed will justify the conclusion, there is great reason to believe that it will be attended with the desired effect.

In reply to the very judicious and candid remarks on the reports of the diseases of the boys in Christ's Hospital, contained in the last half-yearly Retrospect of the Progress of Medicine*, I have only to observe, that I consider cynanche tonsillaris and odontalgia catarrhalis as diseases very generally prevalent in that period of life, in all situations and habits of living; nor do I think that such cases have been more numerous here than might have been expected elsewhere. Some of the cases classed under the title Cephalæa may probably not have been primary affections, but only symptomatic of some irregularity in the organs subservient to digestion, though nothing of that kind might at the time have been apparent. At all events cephalæa can scarcely have been the effect of cold immediately applied to the head; as the greater number of instances of it took place in the spring and summer season, while the colder months have been almost entirely free from it; which would not probably have happened, had it arisen from the prevailing custom of the boys' heads being so generally uncovered.

* Vide *Repository*, vol. v. p. 58.

## II.

*On Dislocation of the Thumb.* By JOHN SHAW, Demonstrator of Anatomy, Great Windmill Street, London, and Surgeon to the Northern Dispensary.

IN almost all the essays on dislocation written even within these few years, the difficulty experienced in the reduction, is said to proceed from the spasmodic action of the muscles which surround the heads of the bones.

Proceeding on the idea that spasm forms the main obstacle to reduction, authors have recommended us to bleed, to give antispasmodic medicines, to use the warm bath, and, in short, every means to weaken and relax the muscular frame. No one can deny that there is a certain degree of spasm of the muscles to be overcome; but an attentive survey of the bones and ligaments, with due attention to their relative situation when dislocated, will prove to us that the difficulty of reduction depends much oftener upon their form and relative position, than upon the spasmodic action of the muscles. When we consider the strong muscles which surround the shoulder-joint, we cannot be surprised that there should be a spasmodic action impeding the reduction of the dislocated humerus. But it is allowed that certain methods of pulling very much facilitate the reduction, nay, that it is almost impossible to effect it even after the patient has been bled to deliquium, if attention be not paid to the relation of the heads of the bones to each other, and the restriction from the new position of their ligaments. But can we believe, that the spasmodic action of the small muscles surrounding the metacarpal joint of the dislocated thumb is able to resist a force which has been so great as to pull off the second phalanx without effecting the reduction? or can this notion of spasm being the impediment explain the difficulty experienced in reducing dislocations of the fingers?

About three years ago, I intended to have given the account of a case of dislocation of the metacarpal joint of the thumb in which reduction was very easily effected. But Mr. Charles Bell having mentioned this dislocation so frequently in his lectures, and also particularly in his work on Surgery, I did not conceive it necessary. I was, however, so particularly struck with three cases in the Edinburgh Medical Journal of April last, that I am induced to think the relation of the following cases may be acceptable to some of the numerous readers of the *Medical Repository.*

If we look back into authors, we shall find some horrid cases of dislocated thumb related. Bromfield tells us of a surgeon, who, attempting to reduce the dislocation between the first

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patient has been almost
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he was in a state of syncope,
found ineffectual. This case
something more than spasmodic ac-
reduction; for the same difficulty
was in a state of syncope, and the
relaxation. Some surgeons are of
foiled, from not having a hold
a proper degree of extension: and
certain kind of lacques, by which
but in the case related by Brom-
cause that the surgeon failed in
for he fixed his lacques so effectually,
phalanx without reducing the first.
the first who paid particular atten-
In the first edition of his Surgery he
in one case the reduction of the dislo-
and that he himself had also been
With the true spirit of surgical investiga-
particularly the anatomy of the joint, and
that the difficulty of reduction was
the bone being wedged between the liga-
it appears by the first edition of his book,
these observations, he was still foiled in his
this dislocation; as he sent away a patient,
her hand in a mild poultice, and return in
The patient never returned.

of Operative Surgery, by Mr. Charles
indebted for the knowledge of the proper
reduction in this dislocation. In the first edition,

he makes these remarks: "I should have
ould have followed up these observa-
viz. that we must bend the thumb
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to be brought through

r seen a case of dislocation
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er these observations were pub-
atient to him with a dislocation of
discharged from a hospital as incu-
empts had been made to reduce it by
wing the principle which he had laid down,
ly reduced it. About two years after the
is case, I met with a similar one. A drunken
Giles's, was seized by the watchman; in
which she made to escape, he caught her by the
d in the struggle the metacarpal joint was dislocated.
carried to the watch-house, where she was kept till
ddle of the next day. Before I saw her, several young
had been trying to reduce the dislocation. I was very
xious to put into practice the principle which had been so
successful in the case which had occurred to Mr. Bell. But
the woman, who had already suffered a great deal from the re-
peated attempts to reduce the dislocation by extension, and not
being yet quite recovered from her drunken fit, was very un-
willing to let me touch her. I however got hold of her thumb,
and in spite of a severe blow, I persisted, and satisfied myself
that the dislocation was not to be reduced by extending the
bones. After pacifying her, by telling her that I did not in-
tend to try again the same method, she allowed me to take hold
of it a second time. I grasped the thumb with my right hand,
having the forefinger placed flatly on the extremity of the me-
tacarpal bone, which was depressed towards the palm, and my
thumb was placed upon the projecting point of the second pha-
lanx; then by pushing up the metacarpal bone with my finger,
by depressing the phalanx with my thumb, and at the same
time bending the joint, by making the metacarpal bone the ful-
crum, I reduced the dislocation with so much ease that I
could hardly believe it was done. The pain which the patient
suffered was so little, that, instead of again receiving a blow, I
was in danger of a hug.

In addition to these cases, there are two more, in which
reduction by bending the joint was easily effected. One case
occurred to Mr. Bell lately; the other was a patient of Mr.

Chapman, Surgeon, in Windsor. I have been favoured with an extract of a letter from that gentleman to Mr. Bell, giving an account of the case, and of which the following is the substance:

A servant-boy, about fourteen years of age, fell, and dislocated the second phalanx of the thumb from the metacarpal bone. Mr. Chapman, having read Mr. Hey's account of these dislocations, foresaw great difficulty in this case.

The hand was held steady by an assistant, and extension was made according to the directions given in such cases. Mr. Chapman, finding his patient to be a stout hardy boy, continued to increase the extension to the utmost of his power, and did not desist until he himself was quite exhausted; but occasionally resting, he continued his efforts for two hours; when, finding all his endeavours ineffectual, he bound up the thumb, and desired the patient to return again in the morning. He now looked again to Mr. Hey's Cases, to Mr. Benjamin Bell's, and to Mr. Latta's Surgery, but without deriving any farther satisfaction. He then had recourse to Mr. Charles Bell's Operative Surgery; and after reading the principles laid down in that book to be followed in dislocations of the thumb, he waited for his patient with some anxiety, and prepared with his couching needle to divide the lateral ligaments, if he was again unsuccessful.

In the morning his patient returned, and he was then joined by his brother and a friend. They proceeded to the operation, and, following the rule in Mr. Bell's book, they attempted to bend the joint, by pressing or rather pulling the phalanx down towards the palm. This was still unsuccessful; and again extension was employed: but after an hour's trial, all their efforts were ineffectual. They succeeded in reducing it, at last, in the following manner: The operator placed his hand on the upper part of the phalanx, and then forced it down into the palm; by doing so, he depressed the point so much, that the opposite part was wheeled into its place. In all the former attempts, the thumb had been grasped, which prevented the phalanx from being sufficiently depressed; in the last and successful trial, there was nothing interposed between the phalanx and the palm, as the thumb was pushed down by the surgeon bearing with his hand against it. Mr. Chapman adds, that he communicates this case, because it proves the difficulty of reducing the dislocation of the thumb by extension; and confirms the correctness of the principle laid down in the Operative Surgery.

If we except the case in Mr. Hey's 2d edition of his Surgery, these four cases which I have mentioned are the only ones that are recorded in which the reduction has been easily effected. In each of these cases extension was found to be useless; but

by bending the joint the bones slipt easily into their places. Mr. Hey says, "Since the first edition of these observations was published, I have succeeded in reducing the bones of the thumb, when dislocated, by pressure, without extension. The pressure should be made against the luxated extremity of the first phalanx, which in this case lies upon the back part of the metacarpal bone." If we press the bone forwards, it must of course have the same effect as if we were to pull it forwards, or, in other words, to extend the bones. Seeing that by pressure the dislocation was reduced, and knowing that extension will not have that effect, I may be allowed to suppose, that the pressure used by Mr. Hey was in a direction downwards, which is in fact bending the joint; so it will bring his case under the class of those reduced by following the principle of Mr. Bell.

I have little doubt that in the case of Macphail, in the Edinburgh Journal of April 1815, the dislocation was reduced in the same manner; for Mr. Ballingal says, that after he had used extension to a great degree, while pressing on the head of the bone, it slipt into its place.

In the case of the drunken woman, I reduced the dislocation easily by bending the joint forwards; but from the experiments which I have made on the dead body, I conceive it will be possible, nay, even necessary, sometimes to make the trial of reducing the dislocation by bending the joint in the opposite direction, while we at the same moment press against the head of the second phalanx.

I shall now give a short description of the changes which take place in the ligaments of the metacarpal joint in cases of dislocation.

Around the joint there is a capsular ligament, which of itself is very thin; but by the accession of a number of tendons incorporated with it, it is in effect very strong. On the upper or anterior part of the joint, there are the tendons of the second and third extensors; and on the lower or posterior part, the tendons of the short flexor are inserted into the sesamoid bones, which are strongly attached by ligaments to the phalanx and to each other; there is also the tendon of the long flexor, passing between the tendons of the short one; on the sides we have the two lateral ligaments, which are strengthened by slips from the muscles. The tendons of the muscles on the upper and lower surfaces, from their being so incorporated with the bones, act not only as parts of a muscle, but also as ligaments: I shall therefore call them the anterior and posterior ligaments.

The great strength of all these ligaments is well shewn, when we attempt to produce dislocation of the thumb in the dead body. I have found it impossible to dislocate the joint without rupturing some one of the ligaments: I have even

broken the second phalanx in the attempt. From this circumstance I should be induced to believe, that dislocation never takes place unless one or other of the ligaments be ruptured. Were there no other ligaments here than the anterior and posterior, the joint would be easily dislocated, and as easily reduced, by simply extending the bones; but we learn from experience, that it is impossible to reduce the dislocation by extension. The knowledge of this fact will lead us to attend to the lateral ligaments. In the natural state, we perceive that they are much stronger than the anterior and posterior ligaments; and while they are entire, there is a very great difficulty in producing dislocation. By cutting the anterior and posterior ligaments, we may dislocate the bones; and then we perceive more clearly the peculiarity in the attachment of the lateral ligaments. We see that the head of the bone is then locked between the lateral ligaments; and if we extend the bones they will be still noosed more firmly; but by bending the joint, the noose is relaxed, and the bones slip easily into their places. This is more evident in the first joint than in the metacarpal. It clearly follows from this illustration, that, unless one of the lateral ligaments be ruptured, we must bend, not extend, the joint, in order to reduce it. From all the cases related, it would appear that the lateral ligaments were seldom ruptured; for had they been so, the reduction would always have been easily effected by extension.

I have always found in the dislocation produced in the dead body, that the attachment of the posterior ligament to the metacarpal bone was torn up; but that there frequently remains on the upper part, not only the extensor tendons, but also some ligamentous bands which are prolonged from the small muscles to the upper part of the lateral ligaments; and which, from the change in their situation during dislocation, form much stronger superior ligaments than the extensor tendons.

When these fibres happen to remain entire, they altogether prevent us from bending the joint forwards, and thus explain why it is sometimes necessary to bend the thumb backwards.

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## III.

*Case of Schirrous Pylorus, which exhibited on dissection a singular descent and situation of the Stomach.* By G. D. Yeats, M.D. Fellow of the Royal College of Physicians, London.

In consequence of a laudable desire, expressed in a former Number of the *Medical Repository*, of possessing morbid appearances observed in dissections, I have much pleasure in transmitting the following result of the examination of a morbid

body, which may be thought sufficiently curious for publication.

HISTORY OF THE SYMPTOMS.

H. P. a widow, ætat. 57, had complained for a considerable time of various stomach ailments, accompanied at one time with vomiting of blood. About one month before she died, I was desired to visit her. She complained of great pain to the right of the pit of the stomach, beneath the rim of the cartilaginous extremities of the ribs. On examination, a considerable degree of hardness, and some knotted inequalities were felt, and pressure much increased the pain. Vomiting was troublesome; it occurred two or three hours after taking food, the appetite for which was not lost, and she felt comparatively more easy after a small quantity of solid than of liquid food, although all kinds were more or less distressing. The food, when thrown up, was unchanged, and was frequently mixed with a very dark-coloured liquid: and the vomiting was at times so strongly excited, that when it came on suddenly, the contents of the stomach would be thrown to a considerable distance in the room. The paroxysms of pain were excruciating. Pulse 108, soft; tongue furred with a white incrustation; bowels very costive; and she always felt easier when they were opened; urine high-coloured; thirst was not complained of; the legs were œdematous. She was very thin. The spine was distorted, and the sternum had a serpentine twist, with a chicken-breasted protrusion. The urine became considerably increased under the use of the supertartrate of potash; and after she had taken the pilula hydrargyri with extractum conii, the evacuations by the bowels, which were before black, became of a yellow colour, but did not remain so. About three or four days before she died, she felt a sensation of something which suddenly dropped down to the bottom of the belly, and an enlargement of the abdomen took place. I believed this enlargement to have been a distension of the colon from flatus, in consequence both of its situation and circumscribed nature, and of the tympanitic sound which it gave upon being struck with the hand; but the dissection will shew it arose from a singular descent and situation of the stomach.

*Dissection.*—The body, which was opened by Mr. Golding, a zealous young surgeon, was much emaciated; abdomen considerably disturbed. On making an incision into it, the cellular membrane was observed of a deep orange colour. On putting aside the abdominal parietes, the stomach was found much distended, occupying nearly the whole of the abdomen, peculiarly situated, and evidently containing much flatus. The body of it had fallen from the epigastric region to the bottom of the abdomen, so that its great arch rested on the os pubis, stretch-

ing from between that point and just above the umbilicus, across the abdomen from one os annominatum to the other, leaving in the arched form of the stomach an open semi-circular space in the epigastric region, between the cardiac and pyloric orifices. The intestines lay under the stomach, and were completely covered by it. At its lesser curvature, towards the cardiac orifice, were patches of morbid vascularity. In the lesser arch, and over it, lay a portion of the lobulus spigelii, and towards the right side, a portion of intestine. On opening the stomach, flatus escaped, and about two quarts of a dark-brown fluid, intermixed with a considerable quantity of glazy mucus, were taken out. The pylorus was found schirrous, much enlarged, very hard, and adhering to that part of the liver where it is suspended from the diaphragm by the ligament. Much morbid vascularity surrounded the pylorus, and extended along the lesser arch of the stomach. The liver adhered to the diaphragm at its posterior and upper part, though it was sound in its substance. Upon laying open the thorax, the lungs presented a perfectly healthy appearance, without any adhesions; a small quantity of water was found in the pericardium and cavity of the chest. The gall-bladder contained about half an ounce of very dark-coloured bile. The ductus communis was so contracted near its entrance into the duodenum as not to permit a passage to the probe. The duodenum was sound in appearance, but was very much dilated throughout its length, as if the fibres had not recovered their contractility from former over distensions. On slitting it up towards the stomach, the pylorus was seen much contracted in its diameter, its coats exceedingly thick, and of a cartilaginous hardness, with firm inequalities, like glandular enlargements, on its peritonæal surface. The spleen in structure and size was healthy; the kidneys also; but the right one was higher up under the liver than is usual. The right ovarium was enlarged, and studded with hydatids of the size of small peas, both superficially and in its substance. The uterus was very small for a person who had borne children.

I have not *Morgagni* at hand, and I do not find in Dr. Baillie's Morbid Anatomy such a situation of the stomach described. Its descent probably took place at the time the patient complained of a sensation of something having fallen to the bottom of the abdomen. Had not the pylorus adhered to the liver, which itself adhered to the diaphragm, the stomach would have taken a more longitudinal position from the pyloric portion, being free from morbid attachments, assuming a lower situation, notwithstanding the firm manner in which the abdomen is tied down by the peritonæum. This descent was probably owing to the following circumstance: The contents of the stomach were constantly accumulating without an ade-

quate exit through the surrounding pylorus; it became, therefore, weakened from an over-distending cause, from the decaying powers of life, and from exhausting ineffectual efforts to expel its contents; it consequently sunk under the accumulated load. This proves that the tonic powers of life are capable of maintaining pendulous viscera in their proper situations with little mechanical aid.

The dissection satisfactorily accounts for the symptoms and the fatal nature of the disease.

*King Street, St. James's Square.*

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## IV.

*Case of a Wound of the Bladder, in which an extraneous substance lodged in it was voided with the Urine.* By JOHN HENNEN, Deputy-Inspector of Hospitals.

THE sudden and unexpected manner in which my services were required in the Netherlands, in the early part of last spring, and the arduous duties in which I have since been engaged, prevented me from preparing for publication the case of a wound of the bladder, of which mention was made in the third volume of the *Repository* (p. 257). Although it is not a solitary instance, yet, it may still be worthy of attention, either in itself, or as it may serve to elucidate the descriptions of similar cases.

James Rowan, of the 1st battalion of the 50th regiment, aged 44, a man of a very robust constitution, was skirmishing in front of his corps, in the Pyrenees, on the 25th of July 1813, when he received a musket-ball, which passing through the skirt of his regimental jacket, entered a little above the tuberosity of the left ischium, in a direction towards the sacrum, and lodged, as was supposed at the time, in the neighbourhood of that bone. The swelling of the soft parts was so considerable, and the general inflammatory symptoms ran so high, that when he was carried to the Field Hospital, it was deemed improper to probe much after the ball. He was, therefore, freely bled; his bowels were well opened; and emollient applications being applied to the wound, he was then sent down to the General Hospital at the Convent of St. Domingo, Vittoria.

On the subsidence of the inflammatory symptoms, several attempts were made in search of the ball; but with no other effect, than to convince the Assistant, under whose charge he was more immediately placed, that it did not occupy the situation originally imagined, but had passed onwards directly into the pelvis.

The patient's general health did not suffer. The wound was scarcely more troublesome than a common flesh-wound; and was unattended with any peculiarity in the appearance, or in the character of the discharge. In short, he was so far recovered, in the course of three weeks, that he was sent down to the General Hospital at Bilbao, in a covered waggon, along with a numerous escort of wounded, a distance of nineteen leagues. On his arrival, he complained of being a good deal shaken; but the wound was nearly healed; and on the most minute examination, no trace of any extraneous substance could be discovered in it. There was every reason, however, to suppose, that the bullet was lodged in the neighbourhood of the bladder, for he complained of a dull sensation in the glans penis, and numbness and coldness of the testicles, attended with great pain in making water, and occasionally an inability to retain it. There was, nevertheless, neither stoppage nor tortuosity of the urinary stream.

The wound was perfectly healed in the first week of December, or about 180 days from its infliction; when he was discharged to the convalescent depôt, where he remained for six days; when the uneasy sensation of the urinary organs arose to actual pain; which he attributed to his change of bed, and not living so comfortably as he did in the hospital. For this grievance he had recourse to a soldier's remedy, and drank as copiously of country wine as his finances would allow. After having committed a debauch on the evening of the eighth day from his quitting the hospital, he was seized with an irresistable desire to make water; and after some severe straining, in which he was sensible of an obstruction about the neck of the bladder, which, for fully half an hour, prevented the passage of a single drop of urine, he shot out of the urethra, with a convulsive jerk, a substance coiled up, somewhat in the shape of a fragment of a large bougie, nine lines in length and three in breadth, the ejection of which was followed by a profuse flow of urine passed without any muscular exertion, and succeeded by instantaneous relief. On examination of the ejected substance, it proved to be two bits of cloth, consisting of his jacket and its lining, corresponding with the size of the shot-hole. The texture was unaltered, but the colour of the red piece was much faded: it had neither any urinous smell, nor was any calculous concretion observable on it.

I had an opportunity of examining this man in February 1814. The wound was perfectly cicatrised, and no disorder of the urinary organs was present: but not the slightest trace of the ball could be discovered either by the sound, or the finger introduced into the anus.

## V.

*On the treatment of Hooping Cough.* By George Rogers, Manningtree, Essex, Member of the Royal College of Surgeons.

As the ultimate design of the practice of medicine is to endeavour to alleviate the sufferings of our fellow-creatures, we ought upon all occasions to feel highly gratified when an opportunity presents itself of disclosing to our professional brethren any advancement in the healing art. The prevailing disposition of some men to pride themselves on the possession of what is commonly called a nostrum, which, if really beneficial, is generally retained as a secret by its discoverer, and administered to a small portion only of the afflicted, instead of being indiscriminately employed to the relief of many thousands, is a principle so repugnant to the feelings of every liberal minded man, that it cannot but meet with that condemnation which it most truly deserves.

We are besides bound by the law of humanity to promulgate every thing that we think appears likely "miseris succurrere." The remedy which I am about to propose for that convulsive cough which is commonly called hooping-cough, if not perfectly original, will I trust equally merit the attention of practitioners, when they find that long and repeated trials of it have proved its efficacy in quickly subduing one of the greatest enemies to human happiness. I had long experienced the mortification of being an eye-witness to the distressing condition of children labouring under this dreadful malady, and had long seen it baffle the skill of medicine in whatever form it was prescribed. Temporary relief, indeed, in some cases, was obtained by emetics, embrocations, blisters, and sometimes a change of air; but no permanent advantage was ever conspicuous while trying the usual remedies proposed for its relief.

I had particularly noticed the weak and exhausted state of children, with the exertion of this convulsive cough, and concluded that the complaint depended upon an atonic state of the stomach affecting the digestive process, whence an accumulation of viscid phlegm was generated. This view of the subject was greatly strengthened by the opinions of the celebrated *Walchmeid* and *Dolæus*, who have both referred the seat of this complaint to the stomach; although they have not, I believe, specified any new mode of treatment*.

With this impression upon my mind, I determined to administer small doses of steel, taking care that the contents of

* Cullen classes it among the order *Spasmi*.

the stomach should be first evacuated by an emetic, and that throughout the continuance of the use of the medicine an occasional laxative should be employed, to counteract that disposition to costiveness, which steel, in the form now recommended, is often apt to produce. I prescribed a diet light, simple, and easy of digestion.

I have selected only a few cases, to shew the general mode of proceeding, not wishing to enumerate more of a very long list of cases, which would occupy an unnecessary space. Three of the cases were certainly as hopeless as could possibly have been selected, and afford an admirable proof of the inefficacy of the accustomed remedies for hooping-cough, and of the relief which was obtained within a few days after the exhibition of the Vinum Ferri.

### Case I.

1812, Jan. 4th.—George Robertson, ætat. 5.—The paroxysms of the cough had been long and frequent for some weeks, during which he vomited tough viscid phlegm, though with difficulty; bowels costive; countenance flushed; eyes dull and heavy; pulse 130. I ordered an emetic to be given occasionally, and a purge.

7th.—Cough continues very violent, with difficulty of respiration, and an aggravation of all the other symptoms.

Repetatur pulvis laxans, et post alvi solutionem capiat Tincturæ Digitalis ♏ vi. sexta quaque hora.

Imponatur etiam Emplastrum Lyttæ sterno.

8th.—The difficulty of breathing is relieved; pulse 100: the bowels still continue costive.

11th.—The cough continues the same; pulse 90; great prostration of strength; bowels open. The dose of the tincture of digitalis was increased to ten drops.

Omittatur Tinctura Digitalis, et repetatur Emeticus p. r. n.

14th.—The paroxysms of coughing are very distressing, and the general strength declining.

℞. Vini Ferri ♏ x. ter die sumend.

17th.—Cough a little better. The dose of the Vinum Ferri was increased to twelve drops.

20th.—The cough is certainly better; the pulse nearly natural; and the strength somewhat improved. There is a little inclination for food. The bowels are costive.

Repetatur Pulvis laxans, et continuetur Vini Ferri ad ♏ xv. ter die; necnon post tres quatuor dies ad ♏ xx.

On the 24th, all the symptoms were better; and within a fortnight the cough disappeared, and the child got quite well.

CASE II.

Jan. 10th.—Septimus Robertson, ætat. 4.—This child was nearly in the same condition as his brother, and was treated almost in a similar way, except that he began more early the use of the Vinum Ferri.

On the 14th, after an emetic, he was ordered to take it every six hours in doses of five drops; and on the 18th the dose was augmented to eight drops.

21st.—The bowels are costive; but the paroxysms of coughing are both less severe and less frequent. After the bowels were opened, the dose of the Vinum Ferri was increased to twelve drops three times a day.

24th.—Much better. Vini Ferri ♏ xij. ter die.

Within ten days afterwards this child was quite recovered.

CASE III.

Jan. 20th.—Sarah March, ætat. 7, had been many weeks ill with the cough, but certainly not to so great a degree of violence as the two children above mentioned. There was, however, great prostration of strength; and the bowels were constipated. An emetic and a purgative were administered.

24th.—In no respect better with regard to the cough.

℞. Vini Ferri, ♏ viij. ter die.

28th.—The cough is a little relieved; and the paroxysms are less frequent.

℞. Vini Ferri ♏ xii. ter die.

31st.—Symptoms all better.

℞. Vini Ferri ♏ xv., et post quatuor dies ad xx. ter die.

Feb. 12th.—Convalescent.

CASE IV.

Jan. 26th.—Mary Soder, ætat. 2.—In this patient the cough had been very bad for about three weeks; the paroxysms very violent; and there was great difficulty in bringing up the phlegm. There was great debility and much emaciation. An emetic was ordered.

31.—She is materially worse, and not likely to live long, if we may judge from present appearances, being a very weakly child.

℞. Vini Ferri ♏ vi. ter die, et post sex dies ♏ viij. ter die.

8th.—Great improvement. She is looking more lively; and the intervals from coughing are longer.

℞. Vini Ferri ♏ x. ad xij.
Post tres dies ad xv. ter die, si opus fuerit.

CASE V.

Jan. 30th.—Susan Wright, ætat. 5, had been tormented with the cough six weeks, which was frequent in its attacks, and productive of great debility and wasting of the body. Let her have an emetic.

Feb. 4th.—In no respect better. Vini Ferri ♏ viij. ter die.

9.—The bowels being costive, they were opened, and the dose of the Vinum increased to twelve drops.

13.—Symptoms all better. Vini Ferri ♏ xv.

21st.—Convalescent.

CASE VI.

20th.—John Reid, ætat. 3.—The cough has been very violent for four weeks. He is much wasted and extremely low. An emetic was ordered, and afterwards six drops of the Vinum Ferri to be taken three times a day.

27th.—The cough is mitigated, and the patient is more lively. Vini Ferri ♏ xij. ter die.

March 6th.—All the symptoms were relieved, and the cough removed; but in a fortnight afterwards this child relapsed. By having recourse to the same plan again, it was soon restored to health.

It will be observed, that the above cases were drawn up four years since, when hooping-cough was very prevalent in this neighbourhood. Being anxious, however, that I might be further confirmed in my opinion of the remedy now proposed, I have waited till the present winter, when hooping-cough again prevailing with us, I have found that the same mode of treatment has proved equally efficacious.

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## VI.

*Practical Observations on the application of Adhesive Plaister.* By POWELL CHARLES BLACKETT, R.N. Member of the Royal College of Surgeons, London.

HAVING remarked that many operations, as well as the union of simple wounds, have proved, if not unsuccessful, at least troublesome, by not uniting by the first intention, and have sometimes been followed by very serious consequences; I was led to suppose that these results were owing more to the irritating qualities of the adhesive plaister, than any other cause, either constitutional or local. Every surgeon, as well as myself, must be aware, that neither operations nor simple wounds require counter irritations; and being impressed with this idea, I apply adhesive strap[illegible] plaister in the center, and having the space, or th[illegible] moistened with sweet oil.

The unspread space may be from a quarter of an inch to two inches in length, according to the size of the wounded parts, or of the straps.

It is useless, here, to comment more upon the subject: but as there are some who may think the observation trifling, I hope, also, there are many who may think it worth their trouble to try this simple experiment; and I have not the least doubt, that they will find it turn out to their satisfaction, as well as to the comfort of their patients.

*45, South Street, Grosvenor Square.*

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## VII.

*Observations on the Mortality of Infants in Paris.* By JOHN BARROW, Member of the Society of Apothecaries, London.

IN Mr. Burrows' very interesting communication "On the Mortality of Paris and London," (vide *Repository*, vol iv. p. 441.) a difficulty seems to present itself, how to account for a greater number of deaths among infants in London than in Paris, according to the relative population of each city. Although I cannot pretend entirely to remove the obscurity, yet there is good reason to presume that it will be much elucidated by the fact I shall presently state, and that it is not owing to the superior mode of treating infants, or any transcendent tenderness on the part of the mothers, that the apparent disparity is so great.

It is the almost universal custom of the Parisians, except those in high life, to send their children out of town nearly as soon as they are born; for no woman is to be seen in Paris, as in London, suckling her child; and you may walk the streets for a day, and scarcely meet an infant in arms.

There is an office called *Bureau des Nourrisses*, which is attended by a multitude of wet-nurses; and where those who are about to become mothers apply, in order to procure a nurse in readiness; who, as soon as her employer is delivered, and the infant baptised (an almost immediate ceremony), departs with her charge; which, in a multitude of instances, is not seen again for a year by the parents, and often a much longer period. Now, whatever mortality occurs among this immense number, which I am informed is sometimes great, it is not of course included in the Paris Bills of Mortality, while the births are sure to be accurately recorded: for the moment a child is born, notice thereof must be sent to the Prefect of Police, and the baptism must take place on that or the following day, under a liability to certain penalties.

I shall conclude with hoping, that as some public notice has been taken of the defects in our bills of mortality; and as we have an excellent, though somewhat arbitrary system before us, no time will be lost in remedying them*.

*Davies Street, Berkeley Square.*

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## VIII.

*A Case of Pemphigus Diutinus, attended with unusual symptoms.* By Robert Stevenson, Surgeon, Berwick-upon-Tweed.

The peculiar circumstances which attended the progress of the following case of Pemphigus diutinus, induce me to think that it may not be uninteresting to the readers of the *Repository:*

7th of September 1814.—Henry Watson, aged sixty-six, of a thin spare habit, by trade a mason, and formerly addicted to drinking ardent spirits, has been afflicted for nearly twelve months with an eruption of watery vesicles of various sizes, from that of a filbert to that of a walnut, on different parts of the body, particularly near the joints. They excite no pain, burst of their own accord, and then heal up. He is regular in his bowels.

Sumat Pilulæ Hydrargyri Submuriatis gr. iv. ter die; superbibendo ℔ss. Decocti Rad. Bardanæ.

14th. Has had a whitloe at the extremity of the fore finger of the right hand, which has produced caries of the joint. No more bullæ have appeared since last report.

18th. One vesicle has appeared upon one of the fingers. The mouth is sore.

Sumat Pil. Submur. Hydr. gr. iv. bis die, ex Decocto.

25th. Two more vesicles have appeared.

Pergat in usu Medicaminum.

October 16th. Several more vesicles have appeared, but not so large as the former.

Intermit. Pil. Submur. Hydr. et Decoct. Bardanæ; necnon sumat Salv. Cinchonæ Cordifol. ℈i. ter die.

The diet to be as generous as he can afford.

November 6th. No more bullæ have appeared. He feels himself stronger and better in every respect.

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* Dr. Burrows feels much obliged to Mr. Barrow for the information his communication affords. He will be thankful for any further remarks elucidating the subject alluded to, from any of the numerous Medical Observers, who have recently visited the capital of France.

13th. One bulla has made its appearance.

December 14th. Several vesicles have risen, and he has had an exfoliation of one of the phalanges of another finger, in consequence of the formation of a bulla upon it.

Pergat in usu Cinchonæ.

December 11th. He is much better in health; but more vesicles have appeared. He experiences much ease from opening the vesicles early with a needle.

Pergat in usu P. Cinchonæ, et adde dosi singulo Acidi Sulph. diluti ♏xv.

18th. Six more bullæ have appeared on the feet, and four on the hands. Opening them early disposes them to heal.

Utatur balnea tepida bis Hebdomada, et perstat in usu Pulv. Cinchonæ cum Acid. Sulph. diluto.

21st. The bath produced very great perspiration; but no more vesicles have appeared. Their eruption has been generally preceded by a numbness of the part on which they appear.

25th. The bath occasioned sickness and vomiting the last time it was used; but there is no appearance of any more bullæ.

January 1st, 1815. He has been in the bath five times since the commencement of its use; and no more vesicles have appeared.

11th. Has had a smart attack of synochus since last report, which is now subsiding. No eruptions have occurred since last report.

Omit. Medicam. et balnea.

15th. The fever is entirely gone, but he is extremely weak. One vesicle has appeared since last report; but upon its contents being discharged by puncture, it got well in a day.

Repet. Pulv. Cinchonæ cum Acid. Sulph. diluto.

February 11th. He has had no return of the vesicles.

April 7th. After continuing well for some time, his complaints have returned; with bullæ, and carious bones of the fingers.

Recurrat ad usum baln. tepid. et Pulv. Cinch. cum Acid. Sulphur. diluto.

June 3rd. No more vesications have appeared; but most of the bones of the fingers have become carious. He has taken no medicines, nor used the bath for some time.

℞ Pulv. Conii, ʒij.
Extr. Cinchonæ, ʒi.
Submur. Hydr. ℈i.—M. Ft. massa in Pilulas xl. divid. Sumantur ij ter die.

May 10. Continues much the same.

May 17. His mouth is affected; but no more vesications have appeared, nor have the bones again become carious.

Minuatur dosis ad Pil. v. in dies.

July 15. Continues better.

August 25. Still continuing better.

October 28. No more vesications having appeared for many months, he was discharged from further attendance.

In the detail of this case, the reader will perceive, that its chief novelty consists in the great disposition to caries, in the phalanges of the fingers. This effect I suppose is a very rare occurrence; and I should think not necessarily connected with this peculiar disease; as it is not mentioned either by Willan or Bateman; or by any of the authors quoted in their valuable treatises. With regard to the efficacy of the medicines employed, the warm bath and the cinchona bark are certainly those which seemed to be of the greatest service.

Except when he was labouring under synochus, there was never any appearance of the evening exacerbations of fever mentioned by Willan and Bateman.

I have seen the subject of this case very lately; and have ascertained, that he has had no return of the disease.

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## AUTHENTICATED CASES, OBSERVATIONS, AND DISSECTIONS.

### X.—*On the Use of Acidulated Purgatives in Cases of Lingering Labours.*

It was the practice of *Mauriceau*, when attending lingering labours in which the pains became suspended, to exhibit an infusion of senna acidulated with the juice of a Seville orange, with the view of exciting, from sympathy, fresh action in the uterus. That this practice may sometimes be advantageously had recourse to, the following case goes to prove.

Thursday, Feb. 28, 1811, Mrs. W., the mother of three children, being at the full period of pregnancy, was awakened from her sleep about one o'clock in the morning by the *breaking of her waters*. Her accoucheur was called to her about eleven o'clock A.M. and found that she had frequent, but not strong pains; and by an examination ascertained that the child's

head was lying above the superior aperture of the pelvis. After a few hours, these pains became less frequent; but in the evening returned, and continued throughout the night to recur often with much apparent force; notwithstanding which no progress was found to have been made in the labour. During the morning of Friday, March 1st, the pains again abated, but they were renewed about five o'clock in the afternoon, and by seven the head of the child had descended so low into the cavity of the pelvis as to give reason to hope that three or four more hours would terminate the labour.

The uterine action continued very regular till about eleven o'clock Friday night, and then it again became suspended; and from this time till six o'clock in the morning of Saturday the 2d, no alteration in the position of the infant could be observed. At six the pains began to rally, and expectations were entertained that now the progress of the labour would be more rapid: but again these expectations were frustrated, for in less than an hour the pains ceased.

During the progress of the labour the patient had taken a dose of castor oil; and two clysters were thrown up, with the effect of producing great discharges of wind, though but little evacuation of feces: and thirty drops of laudanum had been given during the suspension of the pains on Friday morning, but with no advantage; on the contrary it had the effect of producing some delirium.

The friends of the patient becoming restless and uneasy at the slowness of the labour, Dr. ——— was requested to see her, and visited her about one o'clock on Saturday afternoon. The patient was very dejected and listless; her pains were very irregular, and, when they did occur, very slight; she was hot, and the tongue rather white. The os uteri was not fully dilated, nor could he be quite certain that he felt the ear of the child: the introduction of the forceps or vectis seemed, therefore, hardly justifiable; and to use the perforator would be to sacrifice the infant. Dr. ——— was likewise impressed with the idea, that a free evacuation from the bowels would be attended with the happiest effects; he therefore prescribed,

℞. Infusæ Sennæ f℥iij.
Succi Limon. recent. f℥v.—M. Sumat dimidiam statim, et alteram partem post horas duas.

This was to be followed by a stimulating clyster, if stools were not readily procured; and Dr. ——— promised to see the patient again by the time the second dose had been taken.

The first dose had begun to produce some griping pains, when the time arrived for taking the second; and in less than half an hour after the second dose, a strong urgency to have a

motion was produced; and while the patient was on the night table, a very powerful pain was excited, which at once terminated the labour.

The mother's bowels continued relaxed for a few hours, but she soon recovered, and was enabled to suckle her infant.

The method here recommended will doubtless often fail in cases of suspended labour-pains, and may even be injurious if employed under unfavourable circumstances, particularly if the strength of the woman be materially diminished. But where there is simply a suspension of pains in a well-formed pelvis, where there exists a state of habitual costiveness, or where fever or inflammation is commencing, this plan will often be beneficial. I am not sure that the formula recommended by *Mauriceau* is preferable to any other active purge; but it is not an unpleasant remedy, and perhaps the acid may possess some virtues not immediately apparent.

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XI.—*Case of Extensive Inflammation and Adhesion of Parts.*

On the examination of the corpse of ———, Esq. the following appearances were observed:

The body was much emaciated. The sternum being carefully raised, the appearance of the contents of the *thorax* was that of a nearly uniform solid mass, in which there was no subsidence. To examine the heart, which from the beginning of this gentleman's illness was supposed to be the principal seat of disease, I endeavoured to open, separately, the pericardium; but this membrane was found to be inseparably and universally adherent to the heart, except a small portion of its apex, which was filled with yellow pus. The lungs were uniformly adherent to the ribs, and at no point could they be separated without tearing. The *abdomen* was very cautiously opened, and the same appearance of universal adhesion amongst all its viscera was preserved. This state had evidently been of long duration, for the parts were inseparable. It did not contain any fluid, except about a spoonful or two of a greenish serum. A very small portion of the smaller intestines was seen in a sound state; but even this could not be traced one inch without a tedious and useless dissection. An incision into the substance of the liver did not present any thing worthy of remark,

OBSERVATIONS.

From a review of the above circumstances, there is no reason to doubt that this fatal disease originated in the heart and pericardium. And it seems probable that thence was diffused that slow inflammation of all the neighbouring parts which produced the effects before mentioned; for *acute* inflammation of

the contents of the thorax and abdomen must have caused death long before such extensive adhesion could have taken place.

The communication made by the physician to the friends of the patient, throws some light on the symptoms of the disease, and the means which were adopted for its relief. Dr. —— conceives that the above statement made by Mr. —— must necessarily afford much satisfaction to the relatives of the deceased, from the consideration that the appearances described so exactly correspond with the opinions which had been given him of the nature of the complaint; as well as with the various measures to which recourse was had for relief.

It was always Dr. —— object, in the private interviews which he had with Mr. ——'s uncle, to impress upon him the distinction between such general indisposition as might admit of cure, and those truly formidable cases of local disease in which any remedy could only be expected to alleviate some of the more distressing symptoms.

Almost from the commencement of this young gentleman's illness, the difficulty of breathing, the feeling of anxiety in the chest, and more particularly the palpitation and inordinate quickness and irregularity of the pulse, led to a conviction, that the heart had itself become the subject of disease; as did the subsequent symptoms, that this had extended to the liver and the other viscera of the abdomen, of which the dropsical accumulation was the result.

In the beginning, when the urgency of cough, the quickness of pulse, and increased heat of skin indicated an inflammatory affection of the chest, the means employed were such as were deemed most likely to be effectual in counteracting that state: and particular endeavours were made to obviate the return of those repeated attacks of rigor by which he subsequently suffered so much.

The introduction of the seton and other local measures afterwards recommended, had direct reference to the affection of the heart, upon which organ the burthen of the complaint seemed more especially to have fallen; while the extension of the disease to the viscera of the abdomen, made it necessary that the treatment at the more advanced period should be adapted to that change of circumstances.

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## XII.—*Small Pox after Vaccination.*

A CASE of small-pox subsequent to vaccination occurred in a young lady nine years of age, who was vaccinated in Batavia; and, as far as could be judged from the cicatrizes on the arms,

as well as from the account of her mother, in a manner quite satisfactory. She caught the small-pox, however, from her aunt, who had the disease in the natural way. The eruptive fever was exceedingly violent; and the eruption, though distinct, very considerable. The pustules did not increase in size after the fourth day of their appearance, and a few only arrived at maturation; for on the fifth day they began to dry off, and on the eighth the child seemed perfectly recovered. This case is one of the many which have occurred, where vaccination has not afforded a *complete security* against small-pox, but has so far influenced the constitution as to render that disease shorter in duration and less violent in its effects.

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XIII.—*Case of a Schirrous Pylorus, with the appearances of the viscera on the examination of the Body post mortem.*

J. G——, Esq. had resided for nearly thirty years in the West Indies, during the greater part of which he had been afflicted with gout. This disease continued to increase both in severity and in the frequency of its attacks after his return to England; but he rarely consulted any medical practitioner, being prejudiced in favour of a solution of guiaicum in rum, which he regarded as a specific for gout; and the local application of cold water. About six months, however, before his death, his bowels became extremely confined and irregular, which obliged him to apply occasionally for medical assistance: and as by degrees sickness also supervened after dinner, becoming at length the constant attendant of every meal, he consented, at the solicitation of his family, to consult the reporter.

As he did not complain of any acute pain, the vomiting was supposed to result from an irritable stomach, depending on the gouty diathesis; and to remove it, a blister was applied on the scrobiculus cordis, and warm purgatives combined with extractum conii were ordered. No benefit, however, resulted; and the extract was soon changed for the tincture of opium, without any better effect. All the symptoms now began to wear a more formidable appearance. The bowels became altogether locked up, which rendered it necessary to discontinue the opium; and to adopt solely the purgative plan. The patient, at this period, for the first time complained of pain in the left hypochondrium; and having stated that his feelings led him to suppose nothing passed from the stomach into the bowels, a careful examination was instituted, the result of which was a confirmed opinion in the mind of the reporter, that the disease was schirrous pylorus, with complete obliteration of the pyloric orifice of the stomach.

From this time, which was about two months prior to his death, he was successively seen by Doctors Ainslie, Baillie, Sir Henry Halford, and Dr. Saunders; by whom purgatives of various kinds, the mercurial pill, frictions with mercurial ointment, sedatives, and steelwere tried without the smallest benefit. The pain did not increase; but the vomiting became more and more frequent, and the matter ejected gradually assumed a dark grumous appearance evidently from broken-down blood; and exhaled that peculiar odour, which most practitioners must have observed to be characteristic of schirrus of the stomach, although it does not admit of being described. The fatal event at length took place; but it appeared to be more the effect of inanition than of the disease.

DISSECTION.

On opening the abdomen, the *omentum* appeared very much shrunk, and thickened to an inordinate degree. The intestines were generally and relatively in their natural situations, but of a very dark colour; and the *mesentery*, instead of the diaphanous web and beautiful texture of vessels and glands which it displays in a healthy state, appeared like a congeries of solid cakes, opaque, and composed of a substance something resembling fat, but cutting like cartilage.

The *stomach* bore evident marks of previous inflammation at its lower part, towards the left side, and was there rent with the greatest ease; but it was not ulcerated. Towards the pylorus, the coats of the stomach appeared gradually thickened, and at the pylorus were a full inch in thickness, the texture resembling that of cartilage, but with the consistence nearly of bone: the orifice was almost obliterated, so as scarcely to admit a crow quill to pass through it. Along the course of the intestines were various appearances of disease; but especially in the *colon*, which was very much constricted; and in the descending portion, the mucous membrane was ulcerated in two places.

The *liver* was perfectly healthy; but the gall-ducts were obstructed by the pressure of the indurated pylorus; and about twenty gall-stones were found in the gall-bladder, one of the largest of which was impacted in the cystic duct, so that the bile could not have passed from the gall-bladder for a great length of time; and hence a separation of its components had taken place. The gall-stones, when chemically examined, were found to consist chiefly of that substance which has been named adipocere.

The *spleen* was very much shrunk, and of a bright green colour. It contained very little blood; and it was conjectured that a considerable portion of the grumous matter, which was

vomited in the latter period of the disease, was furnished by this viscus, by a retrogade action of the vessels.

The *pancreas* was much indurated; and apparently incapable of furnishing any healthy fluid for the usual functions of the viscus.

The *lungs* were perfectly sound. The *heart* was remarkably small, but in the most healthy state.

From taking a general view of the morbid appearances that presented themselves, it is probable that this disease commenced many years prior to the period at which the symptoms were such as to attract the attention of the patient or his family. Gout, undoubtedly, may have had a very considerable share in the production of them; and the highly seasoned food in which Mr. G. was in the habit of indulging, must also have contributed in a very considerable degree. It was a consolation to the friends of the patient to be assured, that had the actual state of the viscera been known, nothing could have been done towards curing the disease; and therefore the fatal termination of the complaint was the only one which could have been eventually contemplated.

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## *PART II.*

## ANALYTICAL REVIEW.

### I.

*Medico-Chirurgical Transactions, published by the Medical and Chirurgical Society of London.* Vol. vi.

*(Continued from p. 226.)*

17. *Observations on the Mediterranean Fever;* by Alexander Denmark, M.D.

The author of this Paper avows himself to be one of the supporters of *depletion* in the class of diseases of which it treats. He rejects the idea of fixing upon some particular organ as the more immediate seat of disease in general fever; and regards the fact as undeniable, that all the viscera "have been found, at different times, to be individually, and sometimes collectively affected in the very same fever."

A Table is given of the number of patients admitted into the Naval Hospital at Port Mahon, between the 1st of April and the 8th of July 1814, from which it appears, that 524 were cases of fever; and of these, one only in eighteen died.

The patients were chiefly English prisoners returning from France; and the fever was the common endemic of the Mediterranean. It appeared to be contagious, at least among the prisoners.

In the treatment of the disease, when the patient was brought early enough to the hospital, *venæsection* was employed as soon after the rigor, as "re-action had clearly manifested itself," by the returning glow of the skin, the filling of the shrunk features, and the firm, "though oppressed," beat of the pulse; and our author observes, that the earlier abstraction of blood seemed to be injurious; and he fears this circumstance has been over-looked, "in the recent rage for phlebotomy." After the yellow suffusion also supervenes, although the other symptoms may demand it, "venæsection," he observes, "I believe, will not be borne with impunity." He is of opinion, that no advantage whatever is derived from opening the temporal artery; the benefit of the abstraction of blood being the same, from whatever vessel it be taken, "provided it be taken in the same quantity, and in the same time."

Next to venæsection, the most important remedy in this fever, in our author's opinion, is *calomel*; whether exhibited as a cathartic, or with the view of producing salivation. The former effect was the usual consequence when antimonial powder was combined with the calomel; and this combination, instead of inducing nausea, always relieved it, by "emulging the biliary ducts, and procuring copious bilious stools." When the specific action of the mercurial was required, it was given in scruple-doses twice a day; but this was seldom induced until the excitement had been lowered by blood-letting. "I do not," says Dr. Denmark, "recollect any deaths after the specific action of the mercury shewed itself."

Other *purgatives*, besides calomel, were essentially useful. The *cold affusion*, or ablution, "often produced the happiest effects; as, in the latter stages, did the tepid or warm bath." *Blisters*, when local affections supervened, were advantageously employed.

When vomiting was not present, the antimonial powder, either combined with calomel or given alone, produced none of the bad effects which have been ascribed to it in this fever by several authors. But *vomiting*, as a symptom of extreme atony of the stomach, was a most distressing occurrence, and often proved fatal. The ejected matter was "more commonly clear, or tinged with bile," or slimy or ropy, similar to what is thrown up in pyrosis, than grumous; and in the state of debility attending this vomiting, it was impossible to rouse the system by stimuli taken into the stomach; although external applications, as opium plasters "and blisters to the præcordia," were occasionally useful.

"But of all remedies, the warm bath seemed to be most useful. It communicated, through the medium of the surface, energy to the sensorium, and thence to the vascular system; and by sympathy to the stomach. It enabled this viscus to retain small quantities of liquid nutriment, combined with light cordials; which, in some cases, were given while the patient lay in the bath. The debility of the stomach seemed conspicuously to sympathize with the torpid skin. The stimulus of heat to the latter, caused an almost instantaneous cessation of irritability in the former."—p. 311.

One observation regarding the state of debility here referred to, is extremely important, and points out the necessity of judicious discrimination in the employment even of the best remedies.

"I have observed this state to follow evacuations, especially by the lancet, when made too late; and it seemed to me rather to originate from this cause, than to be the result of exhaustion from the reaction of disease."—p. 312.

In the dissections made by our author, of patients who died of this fever, the abdominal viscera alone were examined; and in all the icteric suffusion had taken place. The chief circumstances observed, indicated "an impeded, if not obstructed circulation in the ramifications of the vena portæ; and consequently defective biliary secretion."

With regard to the nature and causes of the Mediterranean Fever, Dr. Denmark considers it to be merely the synochus of this country, modified by climate, and proceeding rather "from the more palpable sources of fatigue, intemperance, (especially in drinking,) and vicissitudes of heat and cold, than from either miasma or contagion."

9. *Further Observations on the Ulceration of the Cartilages of Joints;* by B. C. Brodie, Esq. F.R.S., &c.

This paper, as its title implies, is the continuation of a series of observations on diseases of the joints, which have fallen under the notice of its ingenious author. It is divided into two parts; the first of which treats of the symptoms attending ulceration of the articular cartilages; the second, of the method of treatment to be pursued for the relief of this state of disease.

This species of ulceration occurs "principally in children or in adults, under the middle age." It is generally confined to a single joint, but sometimes two or three are affected, either at the same time or in succession. The cause of the disease can seldom be accurately assigned. When the hip is the joint affected, it is often mistaken for rheumatism; the pains being frequently referred to various parts of the limb: to the knee, for example, the outside of the leg, the ankle, and even a puffy swelling of the knee, sometimes occurs. In the ad-

vanced stage of the disease, the pain is so much increased as to prevent sleep, and can only be relieved by position; but in this case it becomes more fixed, and is much "aggravated by motion of the hip." After some time, the nates of the affected side waste, become less prominent, are soft and flaccid to the touch, "and hang more loosely towards the lower edge." The shortening of the limb is thus explained:

"1. In the most advanced stage, when the head of the femur and the bony margin of the acetabulum have been extensively destroyed, there is nothing to prevent the action of the glutæi muscles from drawing the head of the femur upwards, and in consequence the limb is shortened, as where the neck of the femur has been fractured. 2. In some cases the joint being filled with coagulable lymph, while there is no considerable destruction of the bones, the head of the femur is pushed outwards, till it is beyond the margin of the acetabulum, when the muscles pull it upwards, and occasion a dislocation upwards and outwards. The limb is here shortened, the thigh is bent forwards, and the toes are bent inwards, as where the dislocation in the same direction takes place from any other cause."—p. 323.

The limb also sometimes appears elongated; but this is a deception produced by the position of the pelvis being altered, "so that it no longer makes a right angle with the spine; and the crista of the ilium is visibly depressed below that of the opposite side." This state furnishes no ground of alarm as to the result of the case; but the real shortening indicates abscess "with all its train of bad consequences under which adults almost invariably sink, although children occasionally recover with an anchylosis of the joint."

When the knee is the actual seat of the disease, the pain which is usually referred "to the inside of the head of the tibia," is much increased by motion; but it is slight in the commencement, and unattended by swelling, circumstances which distinguish this affection from inflammation of the synovial membrane, and other diseases to which this joint is liable. When swelling ultimately occurs, it may proceed either from an increase of synovia, or from pus.

"As the ulceration of the cartilages is sometimes followed by dislocation of the hip, so we find that dislocation occasionally takes place from the same cause in the knee. When there has been considerable destruction of the soft parts from abscesses and ulceration, the head of the tibia is gradually drawn backwards by the action of the flexor muscles, and lodged in the ham. The condyles of the femur make an unusual projection, and the articulating surfaces of the bones are partially or entirely separated from each other."—p. 330.

This ulceration, in whatever joint it takes place, is generally tedious in its progress; but varies in respect to time in different cases.

In the treatment of this affection, the first object is "the keeping the limb in a state of perfect quietude." The benefit to be expected from the application of issues, which have been so much recommended, depends, as our author judiciously remarks, on the particular state of the case.

"I have employed," says he, "caustic issues, and seen them employed in a great number and variety of instances, and have found them to be usually productive of singular benefit where ulceration of the cartilages occurs as a primary disease, but of little or no service in any of the other morbid affections to which the joints are liable. Setons and blisters kept open by means of the savine cerate appear to operate nearly in the same manner as caustic issues, and may be used with advantage in the same description of cases."—p. 398.

Bleeding he has not found to be of much use; but "in the early stage the warm bath is of service" in relieving the symptoms. Gum ammoniacum plasters, embrocations, and liniments are inefficacious, and frictions "invariably injurious."

When the cartilages of the hip are ulcerated, our author chiefly confides in rest; and if the disease be advanced, supporting the limb in that position which will most favour the production of anchylosis; with the application of blisters in the early stage, and caustics in the more advanced. The best place for applying caustics, is behind the great trochanter of the femur. The good derived from them "does not seem to be in proportion to the quantity of pus discharged from its surface," but from the external irritation; hence Mr. Brodie recommends the issue to be kept open rather by touching it occasionally with caustic potass, or sulphate of copper, twice or thrice a week, than by beans. But although the caustic relieves the pain, yet the effect is not speedy; he was therefore induced to try the effect of a seton "over the trunk of the anterior crural nerve;" and the result more than realized the hopes he had entertained of its success. Several cases are given to illustrate this fact, the first of which we subjoin:

"November, 1808. Martha Atkinson, 15 years of age, laboured under symptoms of ulceration of the cartilages of the hip. She had pain in the hip and knee, but that in the hip was the most severe of the two. Her sufferings were such, that she could scarcely venture to make the slightest alteration in her position during the day, and she could procure scarcely any rest at night.

"November, 20. A seton was made in the groin.

"November, 22. The pain in the hip was almost completely relieved, and from this time she mended rapidly."—p. 339.

In making this seton, a curved needle should be used; and the seton may be introduced "obliquely on the anterior part of the joint, including from one inch and a half to two inches of integuments."

In this stage of the disease, the same treatment is applicable, whatever may be the joint in which it is situated.

When abscess forms, although children recover, yet adults seldom do well. If a puncture be adviseable, the following mode of making it is recommended:

"An opening being made with an abscess lancet, the limb may be wrapped up in a flannel wrung out of hot water, and this fomentation may be continued as long as the matter continues to flow of itself. In general when a certain quantity has escaped, the discharge ceases, the orifice heals, and the puncture may then be repeated some time afterwards; but where the punctane has not been closed, I have not found any ill consequences to arise from its remaining open."—p. 346.

These observations are illustrated by fourteen well-selected cases. Three are instances of inflammation of the synovial membrane; three, of cases in which that membrane had undergone a morbid alteration of structure; and the remainder, examples of ulceration of the articular cartilages. We extract the seventh, as the dissection confirms the pathological view of the disease adopted by our author.

"John Catnack, 44 years of age, was admitted into St. George's Hospital on the 29th of September, 1813, with pains in the lower limb of the right side, extending from the hip to the knee, and resembling the pains of rheumatism. He attributed these pains to his having caught cold about a month before his admission. He laboured also under a complaint of his bowels, of which he died on the 4th of December.

"On dissection, no preternatural appearances were discovered, except in the right hip. The capsular ligament and synovial membrane were in a natural state. The cartilages covering the head of the femur, and lining the bottom of the acetabulum, were destroyed by ulceration for about one-half of their extent, and wherever the cartilage was destroyed an ulcerated surface of bone was exposed. The round ligament was readily torn, in consequence of ulceration having extended to it at the part where it was inserted into the acetabulum. The bones possessed their natural texture and hardiness. There was no pus in the joint. It was observed that the ulcerated surface of the acetabulum corresponded to that of the head of the femur, these surfaces being exactly in contact in the position in which the patient had remained since his admission into the hospital."—p. 360.

Upon the whole, this communication, although many of the remarks are not new, is well calculated to support the high character Mr. Brodie has justly acquired as a practical surgeon and philosophical anatomist.

19. *Case of Hernia Ventriculi from external Violence, wherein the Diaphragm was lacerated without Fracture of the Ribs;* by Thomas Wheelwright, Esq. Surgeon.

The subject of this case was a seaman, who was pitched from the top of a coach that broke down, and on which he was an outside passenger; "and fell with great violence." Although he continued his journey, and did not arrive in London for thirty-six hours after the accident happened, yet no untoward symptoms supervened until the morning after his arrival, when the author's assistance was requested.

"He complained of most severe pain in his left side, great difficulty of breathing, violent and continued vomiting, chiefly of blood. Pulse 120, small, tremulous, and irregular; countenance pallid; extremities cold; and temperature of the whole surface of the body below the natural standard.

"By assistance he was raised in the bed, and upon desiring him to cough, he was unable; as the mere attempt to expand the chest gave him excruciating pain. I satisfied myself, however, the ribs were not fractured."—p. 377.

He had been previously bled; and owing to the bandage having slipt off his arm during the night, a very great quantity of blood had been lost; "in addition to which he had vomited from two to three pints of bloody fluid. Under these circumstances little could be done; and the patient died on the following morning.

Dissection shewed that the diaphragm had been lacerated, and a considerable portion of the large curvature of the stomach, protruded through the fissure, "filled with a sort of half coagulated blood." It appeared also that a quantity of blood, which was found in the left cavity of the chest, had flowed from a small semi-circular aperture "at the lower part of the thoracic or strangulated portion of the stomach." The fissure in the diaphragm was about an inch in extent, in a direction from below upwards, "and inclining towards the left side."

The most singular circumstance in this case is the laceration, when we reflect on its supposed cause, "pressure of the abdominal viscera:" and although it is evident that the laceration was the consequence of the fall, yet we can scarcely admit that it was produced by the simple pressure of the viscera.

20. *Sketch of the Medical History of the British Armies in the Peninsula of Spain and Portugal, during the late Campaigns;* by Sir James MacGrigor, M.D. F.R.S. Ed. &c. &c.

This is a communication of great interest, both on account of the subject itself, and the legitimate source from which the information it contains is derived. It is divided into three parts; the first embracing "a short sketch of the medical history" of the Peninsular campaigns; the second, "some remarks on the diseases which prevailed;" and the third, the treatment

which was adopted for diminishing the sickness in the army, and the mortality in the hospitals.

The medical history is sub-divided into four periods. During the first, which commenced in December 1811, "when Lord Wellington opened the campaign with the siege of Ciudad Rodrigo," and terminated by the army going into cantonments at the end of April 1812, the diseases which prevailed were chiefly to be ascribed to the severity of the weather. They were continued fever, "pneumonia, catarrh, vernal intermittents, cynanche, and rheumatism. Locked jaw was likewise not unfrequent among the wounded." In the second period, from June 1812, when the army advanced into Spain, until it retreated to winter in Portugal in the following November, remittent and continued fever were of frequent occurrence. Dysentery made its appearance when the rains set in, in September: in October hospital gangrene "spread widely among the wounded;" and "tetanus was prevalent in August, after the battle of Salamanca; and some cases of it appeared at the siege of Burgos." The third period, during which the army remained in cantonments until May 1813, then took the field, advanced into Spain, and, after a series of brilliant atchievements, planted the British standard, and wintered in France, was marked in the commencement by the appearance of a contagious fever arising from the irregularities of the troops. Pulmonic affections supervened on intermittents, and were, in many instances, combined with these fevers and with dysentery. The cases of dysentery assumed the worst form: hospital gangrene was also not rare: and more cases of tetanus appeared "after the battles of Vittoria and Pampeluna than had hitherto been seen in the Peninsula." At the commencement of the fourth period, "the army was posted on the ridge of the Pyrenees," and the weather was so cold, that even the Scotch Highlander felt severely the rigour "of this Alpine situation." The prevalent diseases were synocha, pneumonia, catarrh, and rheumatism. As many of the sick, however, were sent to Passages, and thence by sea to St. Andero and Bilboa, cases which embarked in the transports, "as synochus, landedas typhus, and some even assumed the appearance of typhus icterodes." Dysentery was also frequent during this period; but as the lancet was freely used in the commencement of the attacks, it did not prove very mortal.

This part of Sir James's paper contains a sketch of the state of the other divisions of the army, which were at Cadiz and Bayonne; and concludes by observing, that, when the accounts of peace arrested the victorious progress of the British General, such was the favourable state of the climate and season, the hospitals contained few besides the wounded.

The second part of the paper commences with a statement from the returns of the number of sick and wounded between December 1811 and June 1814; from which it appears, that "346,108 cases of disease or wounds were treated in our hospitals;" of which number, 4,586 were invalided, or sent to England as unfit for service, and 18,513 died. This great mortality, however, is more apparent than real, as it includes every wounded man who had been received into the hospitals, many hundreds of whom did not survive an hour after their admission.

In this division of his subject, Sir James treats of the diseases which were most common in detail; beginning with fever, both on account of the importance and the more frequent occurrence of that disease.

Fever varied very much in form and type, according to the seasons, and the different quarters of the Peninsula in which it appeared; and hence very different and even opposite kinds of practice were equally successful.

"The following is the order of frequency in which fever occurred: 1st, continued, usually the synochus of Cullen; 2ndly, intermittent; 3rdly, remittent; 4thly, typhus. The latter is a type of fever which has become of much less frequent occurrence in the army than it was, it is even a more rare disease now than is generally supposed. I have very often seen the disease erroneously denominated typhus, when it has been merely marked by the debility succeeding the stage of reaction, in either synocha or synochus; and this is of more importance, than as regards a mere nosological distinction; for it leads to a material difference in practice."—p. 400.

*Typhus fever* was rife in the winter of 1812, in a very malignant form, and proved indeed a most formidable disease. The cause assigned by our author is one which was the most likely to excite the disease; viz.—the exposure to cold and moisture in crowded cantonments, with the body strongly predisposed to its attack by the depression of mind which was necessarily consequent on a retrograde movement. Sir James remarks, that the German regiments were among the most healthy at this time; and he adds, "as I have uniformly seen them on every service, particularly in Walcheren." No explanation is given of this fact; and, we are left to conjecture whether this exemption from febrile disease is to be ascribed to their temperance, or to the habit of constantly smoaking tobacco, which prevails generally amongst them. We are disposed to ascribe it to the latter circumstance; as the Highland regiments, which are remarkable for their temperance, suffered as severely from fever as any other part of the army.

The most peculiar features in this fever, were the low temperature of the skin; its deep yellow tinge, which was almost

a constant precursor of dissolution, and severe pains of the lower extremities, without swelling or redness, which "often remained after the febrile action had ceased." Indeed, at Ciudad Rodrigo "mortification of the lower extremities, with livor and mortification of the nose," almost universally attended the cases of typhus. But at this place the disease was not confined to the troops; it spread among the inhabitants; and "in twelve months, 1200, out of a population of 6000, died of misery and fever." The mental depression was considerable in all the cases, but particularly so in those that occurred at Viseu, where the disease "was peculiarly characterized by a strong tendency to dissolution of the body." It made its advances by slow degrees; the patients were unable to explain precisely what ailed them; and "frequently a soldier of the most athletic make, and with no appearance of disease, expressed himself as ready to cry, without knowing the reason."

The least satisfactory part of the history of this disease, is that which regards the treatment. In the milder cases, when the head was much affected, leeches were applied to the temples, or the temporal artery was opened, and the scalp was shaved and covered with a blister, or a blister was applied to the nape of the neck. Cathartics and the saline mixture, with a proportion of tartarized antimony, were the principal medicines employed. Wine was given, but never in great quantity.

The following table will shew the extent to which continued fever prevailed in the British army in the Peninsula.

| | |
|---|---|
| "In 1812 | 16,923 |
| 1813 | 18,294 |
| 1814 to the 24th of June, | 5,007 |

"The total deaths in all the hospitals, generally as well as regimental, of continued fever, was in

| | |
|---|---|
| 1812 | 2,020 |
| 1813 | 1,598 |
| 1814 to the 24th of June,... | 387 |

"Of typhus, we admitted in the regimental hospitals in

| | |
|---|---|
| 1812 | 331 |
| 1813 | 1,309 |
| 1814 to the 24th of June,... | 155 |

"In 1812, there died in all the hospitals, generally as well as regimental | 999
1813 | 971
1814 to the 24th of June,... | 307."—p. 412.

*Remittent Fever.*—The total number of this disease which appeared in the regimental hospitals, in the three years alluded to, was 3,961, of which 150 died. The cold affusion, and bleeding in the early stage, with the use of mercury when the disease was of long standing, were the chief remedies employed

*Intermittent Fever.*—Of this disease, 22,914 cases were admitted into the hospitals; and of this number, 13,759 occurred in 1812; 8,203 in 1813; and 952 only in 1814. As may readily be supposed, this disproportion depended on the situations the troops occupied in the different years. Intermittent is almost endemic in every part of Portugal, and in many parts of Spain; so much so, indeed, that our author observes, "the inhabitants do not term it a disease: infants at the breast are frequently seen with it." The total mortality from this disease amounted to 291: but the majority of these cases were complicated with other complaints.

In some instances, the cases of ague degenerated to continued fevers of a typhoid type, or to dysentery. Several were accompanied with "an erythematous papular eruption over the whole body."

Recent unmixed cases were not difficult of cure; but relapses seldom "or never got completely well;" and these were readily produced by "exposure to a shower of rain, or wetting the feet, exposure to the direct solar rays, or to cold, with intemperance and irregularity, or great fatigue." Bark was chiefly relied on, and proved generally successful when given to the extent of an ounce, or an ounce and a half, "in the six hours before the expected paroxysm." Arsenic was found to be next in efficacy to bark; "and next to it the sulphas zinci." From comparative trials, Sir James ascertained that the cinchona *cordifolia* and *lancifolia* cure intermittents in nearly equal proportions.

"I may mention, that in the Peninsula as well as in other quarters, I have frequently known an empirical prescription with bark succeed in cases where, when given in the usual manner, this medicine had failed. It is, as far as I recollect, an ounce of bark, a table spoonful of Jamaica, or half a tea spoonful of Cayenne pepper, and a whole nutmeg, mixed and given in one dose, a short time after the action of a gentle emetic, and between the paroxysms of recent cases; in two cases out of three this will prevent the occurrence of another paroxysm."—p. 419.

The indiscriminate use of cathartics, particularly those of a mercurial kind, are properly reprobated. Dr. Buchan found that when a pain in the back part of the head, with a sense of fulness remained, after the ague, this eruption could be removed only by a return to the use of the bark.

*Dysentery*, the usual scourge of armies, prevailed to a great extent in the Peninsula. The cases admitted in the regimental hospitals amounted to 7526; of which 4717 died; but many more, not enumerated, were treated in the general hospitals: and Sir James candidly acknowledges that, "exclusive of the wounded, the mortality from dysentery appears to have been in

the highest proportion." This circumstance is ascribed in part to the stations of the hospitals, which were occasionally very unfavourable. Thus at Ciudad Rodrigo the situation was not only generally unhealthy, but there was every want of accommodation; the place being in ruins, having been the object of much contest; and nearly 20,000 bodies had been buried in the town, "or under its walls, in the course of a few months." Dysentery was particularly fatal also at Celerico, Viseu, Alentijo, and Abrantes; but in the greater number of instances it was complicated with other diseases; for when "pure and uncombined, and when the cases were taken early, it was found very manageable." The following plan of treatment adopted by Dr. Somers, may be regarded as a summary of that which was generally followed in the army for the cure of this disease.

"He commenced by copious venæsection, and immediately afterwards he gave pulv. ipecac. composit. gr. xii. every hour, which which was repeated three times, with plenty of warm barley water; and profuse sweating was encouraged for six or eight hours. A pill of three grains of calomel and one of opium was administered every second night, and in the intervening day ʒij. of sulphat of magnesia, dissolved in a quart of light broth; the venæsection was to be repeated, while the state of the strength and pulse permit it, until the stools are free or nearly free from blood; following up this plan with the Dover's powder as a sudorific.

"In cases where the pains were excruciating and attended with much tenesmus, the warm bath gave instantaneous relief. This plan being steadily persevered in for a few days, the inflammatory diathesis of the intestinal canal, which had excited symptomatic fever throughout the general system, was found gradually to yield, and make way for returning health. In this stage, gentle tonics, with light nourishing diet, cautiously exhibited, and at first given but in very moderate portions, were introduced with the happiest effects."—p. 428.

When, however, along with the mesenteric symptoms, those of chronic hepatitis were present, mercury was the remedy on which much reliance could be placed.

In the examinations post mortem, the liver was found to be the organ most affected; the spleen and mesenteric glands also were not unfrequently much altered from the healthy state; "and sometimes the pancreas was one mass of disease."

"A great many of the bodies of the dysenteric were inspected, and a great uniformity was found in the morbid appearances. In those inspected under the superintendence of Mr. Guthrie, Mr. Hennon, and Mr. Arthur, at Elvas, Abrantes, Celerico, St. Andero, and Bilboa, they found ulcuscula, which had a healed appearance, being covered with a delicate extension of the villous coat, or a reparation of a new substance. Purulent collections formed in various parts of the canal. The liver, in many of these cases, was found

hardened, of a dark complexion, enlarged, and with preternatural adhesions. In some cases, it appeared smaller than usual, and in these, the spleen was large and much diseased. They found the pancreas diseased not unfrequently; and sometimes the gall-bladder or its ducts.

"The reports of most other gentlemen were similar to these. In a majority of cases, it was found, that the colon from the arch downwards, and the rectum more especially, were throughout in an ulcerated sloughy state; the liver and the spleen in general preternaturally large, and verging to suppuration. One spleen weighed three pounds, four ounces."—p. 436.

In chronic dysentery, Dr. White's method of treatment by bandaging with flannel, and by the application of adhesive plaster to the abdomen, was found to be serviceable. Nitric acid, with opium, in long continued and complicated cases, was also useful, as was a combination of calomel and conium, particularly when other visceral affections were present.

*Pneumonia* was less frequent than it usually is in armies; 4027 cases only were admitted into the regimental hospitals; and "there died 285 in all the hospitals, general as well as regimental."

Sir James endeavours to impress, strongly, on the mind of the young military practitioner, the necessity for the most copious abstractions of blood when this disease attacks the soldier; nor is the quantity to be regulated, unless by the relief which it affords to the respiration. "In the soldier," he adds, "its attack is often insidious, requiring the experienced military practitioner to detect it."

"It frequently happens, that the patient, so far from exhibiting the well known diagnostics, appears to labour under every symptom of oppression and debility. Until strictly questioned, he complains of nothing so little as his breast. The true nature of the disease is not detected without the most experienced and scrupulous examination; nor does it show itself in its natural colours, till the functions of the oppressed and congested lungs are in some degree restored by abstraction of blood. Without this relief, it cannot shew itself; for re-action under such circumstances cannot take place, and the practitioner is led into the fatal error of treating the disease as low fever."—p. 439.

To those who have seen much of pneumonia in private practice, this form of the disease is by no means so uncommon as Sir James supposes it to be. We have at present a case under treatment, in which the pulse, when we first saw the patient, was oppressed and scarcely perceptible; and it was not until after twenty ounces of blood had been taken away at once, that it became free, quick, and hard, indicative of high inflammatory action

*Phthisis Pulmonalis.*—The number of deaths from this disease in all the hospitals, was only 279; a very small proportion indeed of the total mortality. The beneficial effects of a humid atmosphere to phthisical patients was too obvious to be overlooked.

*Rheumatism* prevailed chiefly at the sieges of Ciudad Rodrigo, Badajos, and Burgos. The number of cases admitted into the regimental hospitals was 4,933. We were rather surprized to find, that spirit of turpentine was employed in some old chronic cases only; as experience has convinced us that after clearing the *primæ viæ* and opening the skin, no remedy can be so fully relied upon as spirit of turpentine, particularly when given in conjunction with bark, for the cure of the acute form of this disease.

*Tetanus*, as has been already observed, "was always very prevalent among the wounded after the great battles."

A remarkable case is stated, in which recovery apparently resulted from the patient having been exposed to very severe cold and wet. "From six o'clock in the morning till ten at night," he had travelled in an open bullock car, and arrived at the quarters "half starved to death, but perfectly free from every symptom of tetanus." Two other cases terminated successfully, which were treated by opium and carbonate of potass alternately given. The largest dose of the alkali did not exceed fifteen grains, and that of the opium twenty drops of the tincture; but these were exhibited every second hour. Opium nevertheless, mercury in every form, and wine, failed in the majority of cases; "and the cold bath," Sir James laconically observes, "was worse than useless;" we are, however, gratified at the testimony of so ample an experience in support of the efficacy of purging in this complaint. "Judging from the very few successful cases," remarks our author, "we may be disposed to trust principally to blood-letting, purging, opium, and digitalis." Tobacco glysters, which have lately been found so serviceable at home, "tried in the advanced stage of the disease, seemed to have no effect."

The *third part* of this paper, intitled "*Prevention*," contains many very excellent observations on the medical œconomy of armies, an object not less necessary than personal courage in the soldier, and military talent in the general, for securing the successful issue of operations of the field. Sir James points out the propriety of inuring men to the climate in which they are to act before they join their corps; and hence how desirable it is that recruits should be sent to an army at the close of a campaign, when it is about to go into quarters. The necessity of warm cloathing for the soldier is also pointed out. "The best cloathed," as might be expected, "were generally

among the most healthy regiments." With the following observation regarding the preparation of the soldier's food, we cannot accord:

"If left to himself," says Sir James, "the soldier would broil his modicum of meat and eat it at one meal, drinking his allowance of wine or spirits at a draught. It is needless to say, how hurtful this must be to a man undergoing great fatigue and requiring much nutriment. The orders of the Duke of Wellington were, that, whether in the field or in quarters, the men should be divided into messes, have regular meals, their meat be well boiled, with a portion of vegetables and salt (whenever they could be procured): and under the inspection of their officers."—p. 470.

Now although we admit the impropriety of eating the whole of his meat, and drinking his allowance of wine and spirits, at once; yet we must contend, that broiled meat, if not overdone, is more nutritive than boiled, inasmuch as the juices are retained, on which its nutritive qualities chiefly depend.

Our author concurs with the observation of Sir John Pringle, that hospitals themselves are often among the causes of the mortality of an army; hence every corps had its own hospital, and the sick were sent to the general hospitals only when worn down by protracted disease. We cannot too highly commend the regulations established for the government of both these descriptions of hospitals.

The paper concludes with several tables, containing abstracts of the admissions, discharges, and deaths, in general and regimental hospitals; and a return of the number of deaths which have occurred amongst the convicts in Portsmouth and Langston Harbours, from January 1805 to June 1815.

Having thus finished our analysis of this paper, it is but justice to confess, that in our opinion it adds much to the value of the volume in which it appears. We forbear from making any particular remarks on the style and language; but will merely observe, that the author appears to have been more anxious to collect useful facts, than to adorn his periods; conscious of the value of the gem he had to offer, independent of its polish and decorative mounting.

21. *Statement of the comparative Health of the British Navy, from the year* 1799 *to the year* 1814, *with Proposals for its farther improvement;* by Sir Gilbert Blane, Bart. F.R.S. &c.

This paper may be regarded as a commentary on a series of tables, illustrative of the health of the British Navy in a given period; the materials for the formation of which have been supplied, partly from the author's own experience while he was physician to the fleet, and a commissioner of the sick and wounded seamen; and partly from documents obtained from the public offices of the navy.

From these tables it appears, that there has been a "gradual and great diminution of sickness and mortality" in the navy from 1779 to 1813, the period to which they are brought up. In 1796, the decrease "fell," says Sir Gilbert, "per saltum;" and the reason he assigns for this circumstance is, that it was "the first year in which the general supply of lemon-juice took place;" a substance, the use of which has nearly eradicated scurvy, the greatest bane of a sea-faring life. In 1797, however, an increase of sickness occurred, which is ascribed to the alarming mutiny which then broke out; and in 1804 there was a greater mortality, owing to the prevalence of the yellow fever in the West Indies that year.

"The principal diseases," we are informed, "which constitute sickness, and cause mortality on board of ships in all climates, are, scurvy and fevers;" dysentery within the tropics, and pulmonic inflammation in the European stations.

Our author enters into the history of the introduction of the use of lemon juice into the navy; from which it appears, that its remedial effects in scurvy were known even before the time of Woodall, who wrote his "Surgeons' Mate," in 1636. It was nevertheless neglected for nearly two hundred years, until again introduced through the writings of Dr. Lind; after which, scurvy so rapidly declined, that in a table containing a statement of the diseases admitted into the Royal Naval Hospital at Plymouth, from 1806 to 1809 inclusive, it is not inserted "as one of the heads of disease." Sir Gilbert is of opinion, that the acid juices of other fruits and vegetables, saccharine substances, fermenting matters, and even the nopal, may retard the progress of scurvy; but cannot cure it like lemon-juice. The mineral acids have no effect.

The liberal supply of fresh provisions and vegetables, and improvements in ventilation and cleanliness are also to be regarded as causes of the greater health of the navy. The influence of these causes has been particularly obvious with regard to fever. In the regulations respecting personal cleanliness, the regular washing of apparel is enforced, and two sets of hammocks are provided; but our author laments, that there is still "the want of a regular and adequate supply of soap." The many valuable improvements that have taken place in ventilation, are next noticed; with the substitution of iron tanks for water casks, and the alterations suggested by Mr. Sepping in naval architecture*, which have rendered the air in the holds of men of war nearly as pure as it can be in any situation

* For an account of these improvements vide *Philosophical Transactions*, 1814.

where a great number of individuals are confined in a comparatively small space. In respect to food, more attention is now given to obtain it of the best quality: as much wine is supplied "as is equivalent to one-half of the allowance of spirits;" and "the use of cocoa for breakfast" has been adopted.

In the treatment of the sick, independent of the greater medical skill of the present race of navy surgeons, such improvements have taken place "in the situation, fitting up, and furniture of the sick-berth, as it is called," that both the wounds and diseases of the men are now treated on board of their own ships, instead of being sent to the hospitals. Much mortality has also been prevented by the introduction of vaccination.

"The causes of the improved state of health of the British navy appear therefore to consist in the ample and general supply of lemon-juice, the superior attention to cleanness, dryness and ventilation, the improvement in victualling, vaccination, and superior medical treatment."—pp. 514, 515.

Our author, in adverting to the moral effects of these improvements, in elevating the spirits of the men, and rendering them more effective for every species of service, claims for the medical department of the navy its due share of praise in bringing about those important events which have added so much splendour to the British name, and rescued Europe from the iron sway of a sanguinary and unrelenting despot.

Sir Gilbert, however, shews that the mortality in the navy, notwithstanding the improvements that have taken place, is still higher than that in any other situation, being one in 30·25. As this loss is chiefly attributed to pulmonic inflammation and fever, he conceives it may be much reduced, if Mr. Sepping's improvements "shall be universally carried into practice;" if cleanliness be further promoted by an "ample and regular supply of soap;" and if wine and tea be substituted, to the entire exclusion of spirits. Instead of the duty of wooding and watering being performed by seamen in West Indian and other tropical ports, by which fevers are often contracted on shore and conveyed on board, he proposes, that "all such duties should be performed by hired negroes;" and, lastly, that the deficiency which still exists "of adequate and substantial diet, adapted chiefly to convalescents," be supplied by fresh provisions preserved on the plan invented and brought into use a few years ago by Mr. Appert*.

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"* The method is as follows: The meat is put into a pot, the bones being first removed to be boiled in the ordinary way. When it is about three fourths boiled, it is taken out and put into jars,

The remainder of this interesting paper contains some observations on the health of the marine of the East India Company, the tables referred to, and what the author terms *illustrations*, consisting of correspondence, historical proofs, and extracts from the papers furnished by the public offices.

From the short and imperfect abridgment we have given of this paper, our readers can form only a very inadequate estimate of its value; to enhance which no encomium on our part is required. The matter is in the first degree important, the arrangement judicious, and the style, which is throughout perspicuous, occasionally, where the subject permits, rises into eloquence. Having thus expressed ourselves, we are, nevertheless, bound to notice one error into which our author has inadvertently fallen. In page 500, speaking of antiscorbutic vegetables, he says "a vegetable substance called nopal, the stalk of the *cactus opuntia*, &c." Now nopal is the Indian name of the cactus, which has neither stalk nor leaves; but is a plant altogether composed of flat, irregularly oval-shaped, fleshy joints, adhering to each other, and covered with sharp spines. In page 498 also, table v. is referred to instead of table iv.

22.—*Particulars of a Case in which a very large Calculus was removed from the Urethra of a Female without Operation; with Examples of analogous Cases;* by John Yelloly, M.D. F.R.S., &c.

The subject of the present case was a female, 24 years of age, who had been troubled with various symptoms, indicative of some affection of the bladder, from the age of seven years; but no demonstrative appearances of calculus had been observed until after her third pregnancy, when several substances, described as resembling the fur from the inside of a tea kettle, of more than half an inch in length, were passed. This event, however, procured only temporary relief; and soon afterwards a small calculus, eighteen grains in weight, flat, and of an oval form, was extracted from near the external orifice of the urethra by means of a pair of forceps; and at the same time Mr. Hopké, by whom it was extracted, ascertained that there was a very large stone in the bladder, which half a year afterwards advanced into the urethra.

"On examination per vaginam, he found the calculus sticking

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which are filled up with broth made from other portions of the same meat. The jars are then corked, luted, and put into bags; they are next placed in a boiler of cold water, heat is applied till the water boils, and the boiling temperature is kept up for an hour; the fire is then extinguished, the water drawn off from the boiler, and the bottles or jars taken out, which completes the process."

in the urethra; but there was no opening between the urethra and vagina; and he remarked at the time, that if there had been such an opening, he would have felt himself warranted in enlarging it, for the purpose of removing the stone. In about eight days he again saw the patient, with Mr. Headington, Surgeon to the London Hospit ' ; when that gentleman, by means of his two fore-fingers, remo ed the stone without difficulty. Mr. Headington satisfied himself, by careful examination, that no communication existed between the urethra and vagina."—p. 576.

The whole of the calculous matter does not appear to have been removed from the bladder, (which we conceive might have been done while the urethra was so much dilated); for two years afterwards, a fortnight before her death, which occurred three weeks after her delivery, she passed "several portions of the same fur-like substance which are [is] mentioned as having come away subsequent to her third delivery."

"The calculus which was removed from this patient is of an irregular surface, and of a flattened oval shape, having two little rounded projections at the extremity by which it passed from the urethra. In weight is 3 ounces, 3½ drachms Troy; it is 3⅛ inches long, 2 inches broad, 1⅞ inch thick, and 7¾ inches round in its larger, and 5¼ inches in its smaller circumference.

"It is composed principally of uric acid, disposed in close concentric lamellæ, having no perceptible nucleus; and a considerable portion of its surface is covered with a mixture of phosphate of lime, and ammoniaco-magnesian phosphate."—p. 578.

Several similar instances are detailed, chiefly from the Philosophical Transactions; and Dr. Yelloly observes, that in all of them, as well as in the case that forms the subject of his communication, an incontinence of urine continued after the removal of the stone. In this case, at least, he conceives that the eneuresis proceeded from some injury done to the neck of the bladder and the urethra; but no plan for the relief of this effect is suggested by the Doctor.

23.—*Case of the successful Treatment of the Incontinence of Urine, consequent to Sloughing or Ulceration of the Bladder from Injury during Labour, with Observations;* by S. Barnes, Esq. Surgeon to the Devon and Exeter Hospital, &c.

In this case the cure was obtained by continued pressure applied by means of a gum elastic bottle, with a piece of sponge sewed to one side of it, introduced into the vagina. This apparatus was recommended to the author as a palliative by Dr. Gooch, to whom it was suggested by Mr. G. Young. The following is the method in which it was applied.

"A flat silver catheter was left in the bladder, and a few days after an elastic gum bottle was introduced in the vagina. A firm

one was selected, capable of containing two ounces of water; and had sewn on the convexity of its side a thin fine piece of sponge as large as a dollar. A double string was passed internally through its bottom, and left hanging through its neck. The sponge was well smeared with the calamine cerate, the bottle dipped in oil, folded longitudinally and passed into the vagina with the sponge in front. From its elasticity, it immediately expanded; and by a finger introduced through the neck, it was readily placed in its proper situation, so as to bring the sponge immediately opposite the perforation in the bladder. The catheter was then withdrawn.

"In this situation it filled the vagina, and kept up a gentle and equable pressure on the injured part, so equable and so effectual that whilst the bottle was in the vagina the urine was perfectly retained for a little more than two hours. If the bladder was not then emptied by the catheter, the urine continued to ooze away until it was drawn off. Guided by this the catheter was introduced every two hours during the day. This was preferred to keeping the instrument constantly in the bladder, as she found much inconvenience from its remaining there when sitting, and without further mechanical aid, it was not possible to keep it steadily in its situation when walking. It was not thought that the opening would be stretched by the inconsiderable dilatation of the bladder from the urine collected during the course of two hours, as she drank but very little in quantity, and the water drawn off seldom exceeded two ounces, generally did not amount to so much. Provided no urine passed through the opening, the principal object appeared to be obtained, and the patient was enabled at the same time to get out of doors. When in bed, a short flat catheter was kept constantly in the bladder. The bottle was withdrawn, and a fresh one introduced every morning before she left her bed.

"The comfort afforded by this plan in keeping her dry during the day was exceedingly great. She was enabled to move, sit, or lie without inconvenience, nor was she ever wetted unless the bottle was become soft from use. This, when discovered, was carefully guarded against by renewing it frequently. In a short time she learned to pass the catheter herself, and felt happy in being thus relieved from much of her anxiety and dependance."—p. 586-8.

The cure was completed in less than nine months; but the catheter was used for some weeks after the use of the bottle had been discontinued.

24.—*A Case of Mortification of the Uterus, occurring a few Hours after Delivery, with some Remarks on the Cause that produced it*; by Thomas Graham, Esq.

This is a singular case, and well described.

25.—*On the Use of the Lactuca Virosa in Hooping-Cough*; by J. Gumprecht, M.D. &c.

The extract of the lactuca virosa is an officinal preparation of the Edinburgh College, and has been employed by several Scotch practitioners as a narcotic in hooping-cough. Dr. Gum

precht supposes that its beneficial effects arise from a sympathetic action on the organs of respiration, through those of the cuticular and urinary system, on which it is known to operate. As a narcotic, it may prove useful in hooping-cough, after the inflammatory stage of the disease is subdued; but we are of opinion that new remedies are less wanted than a knowledge how to employ properly those which we already possess.

Two cases are added to illustrate the effects of this remedy. In the first, the subject of which was a child 15 months old, the extract of the lactuca was given at first in doses of less than half a grain, every ten hours; and gradually increased to nearly ¾ of a grain. In the second, to a girl of four years of age, the dose at first was rather less than ¾ of a grain, and ultimately one grain every two hours.

26.—*Some Experiments on the Chemical Nature of Chyle, with a few Observations upon Chyme*; by Alexander Marcet, M.D. F.R.S.

The object of these experiments was to "determine whether any sensible chemical difference could be traced between chyle obtained from an animal previously fed with vegetable food only," and from one after a meal solely of animal food. The chyle was procured from the thoracic duct, "within three hours after the animal had been fed, and before the functions of life were entirely extinct."

The length to which this analysis has already extended, prevents us from noticing the details of Dr. Marcet's experiments; we shall, therefore, merely extract his conclusions.

"1. The specific gravity of the serous portion of chyle appears to be between 1021 and 1022, whether formed from animal or from vegetable food.

"2. The quantity of solid residue, comprehending both saline and animal matter, left by the evaporation of chyle, at the heat of boiling water, may generally be stated to vary between 50 and 90 parts in 1000.

"3. The quantity of saline matter appears about 9 parts in 1000, being the same proportion of salts which is found in all other animal fluids.

"4. The chyle from the vegetable food appears to yield by analysis, about three times as much charcoal as that from animal food.

"5. The chyle from animal food is much disposed to putrefy, and generally begins to undergo that change in three or four days; whilst that from vegetable food can be kept for weeks, or even sometimes for months, without undergoing putrefaction.

"6. The coagulum of chyle is more inclined to putrefy than the serous part.

"7. The chyle formed from animal food alone is always milky, and on standing, an unctious white creamy substance collects on the surface; its coagulum is opake, and has a pink hue.

" 8. The chyle from vegetable food is commonly transparent, or nearly so, like common serum; its coagulum is nearly colourless, like an oyster; and no creamy substance rises to the surface.

" 9. The principal ingredient of the animal matter of chyle is albumen; but, besides albumen, chyle, especially when derived from animal food, contains globules of an oily substance, which bears a strong resemblance to cream.

" 10. By the destructive distillation, chyle gives, first a liquor impregnated with carbonat of ammonia, and afterwards a heavy fixed oil. The chyle from animal food yields a greater proportion of either of these products; but the residue, whatever the mode of analysis be, contains less charcoal than the chyle from vegetable food. Iron is readily detected in the residue of chyle, mixed with the salts and carbonaceous matter.

" 11. Chyme, from vegetable food, yields much more solid matter than any of the other animal fluids; though it appears to contain rather less saline matter.

" 12. Chyme contains albumen.

" 13. It yields about four times as much charcoal as chyme from vegetable food.

" 14. Neither chyle nor chyme contain any gelatine."—pp. 629-31.

27.—*Further Observations on the Ligatures of Arteries;* by Benjamin Travers, Esq. F.R.S. &c.

From several ingenious and well-conducted experiments to determine how far the temporary application of ligatures might simplify the plan usually employed for obliterating large arteries, Mr. Travers was induced to conclude, that,

" 1st. No material obstruction is opposed to the passage of the blood upon removing the ligature at a period of six or even of nine hours from its application, and consequently its ultimate obstruction under these circumstances must be referable to the gradual completion of the adhesive process.

" 2dly. The residence of the ligature for a period of six hours, affords direct evidence of an inflammatory action in the deposition of lymph between the divided tunics: which deposition is more abundant at nine hours, and sufficient for the obstruction of the vessel in twelve; presenting the form of an interstitial cord between the lips of the fissure, and continuous with it, a membranous septum extending across the vessel*.

" 3dly. The septum of lymph is formed prior to the coagulum of blood, and in all cases of ordinary circulation is, of itself, adequate to the prevention of hemorrhage; but under a sudden extraordinary impulse of circulation, or a violent concussion *ab externo*, is liable to be ruptured and give passage to the blood. If however an interval of six hours be suffered to elapse after the removal of the

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" * This septum is concealed by the cylindrical coagula of blood which adhere to it intimately."

ligature, the same violence is not followed by hemorrhage, although no coagulum of blood be formed.

" 4thly. The cylindrical coagulum of blood supporting the septum of lymph, is an additional preventive to hemorrhage under extraordinary impulses. It may be formed at twelve, or may not be formed at twenty-four hours; the nearest collateral branch being equally distant, and the obstruction equally complete in both cases.

" 5thly. A period of twelve hours is sufficient for the obstruction of the vessel by lymph, so as to admit of the removal of the ligature, and the wound or division of the artery without danger of hemorrhage.

" 6thly. The addition of the pressure of the ligature to the wound which it inflicts, accelerates the adhesive process; thus within a certain limit, the earlier the removal of the ligature, the more remote is the period of obstruction. If applied for six hours, it is unsafe to open the artery in less than twenty-four hours; if for twelve hours, the artery may be opened immediately.

" 7thly. The ligature applied for twelve hours upon the truncated artery, is equally safe as upon that which is continuous.

" 8thly. The coagulum of blood is larger and more extensive in the truncated than in the continuous artery, and is not bounded by collateral vessels, but extends into them; probably owing to the feebler propagation of the heart's impulse along the divided and retracted vessel, and the consequently greater quiescence of the fluid blood."—pp. 641-3.

The author having so far determined the above point, next endeavoured, by another set of experiments, to ascertain the merit of the compressor comparatively with the ligature. This instrument has been much employed on the Continent; and Professor Asalini, in particular, entertains a decided preference for it in the operation for aneurism. Mr. Travers' experiments led him to form a different opinion.

" 1. The compressor, like the ligature, effects the obliteration of an artery by exciting inflammation upon its internal tunic.

" 2. The operation of the compressor differs from that of the ligature in not producing a læsion of the inner coats, and therefore exciting inflammation upon a continuous surface.

" 3. The operation of the compressor is slower than that of the ligature. The former applied for thirty hours, leaves an inflammatory blush, or a pellicle of lymph, upon the inner coat, while the latter applied for only twelve hours, is found to have obstructed the vessel by lymph: again, the former applied for six hours has produced no apparent sign of the adhesive process, when examined at the end of seventy hours; whereas the latter applied for the same time, and examined after the same interval, is found to have effected the complete obstruction of the artery.

" 4. The effusion of lymph after the application of the compressor, where the obstruction of the artery has been accomplished, is *en masse*, to the extent of the part compressed, which is marked by a deep indentation of the walls of the vessel to which the lymph

firmly adheres. The mass is of least firmness in the centre, where it is mixed with the red particles of the blood.

" 5. The application of the compressor for a period of twenty-five hours is followed by a sloughy state of the external coat of the vessel.

" 6. The compressor left upon the artery is liberated by ulceration in about four days; the adjoining portions of the vessel, being previously secured by the adhesive process, present solid conical extremities. The effacement of the compressed portion of artery is complete; and the appearances correspond precisely with those produced by the application of two ligatures, distant half an inch, more or less, upon a portion of artery denuded of its sheath, in which the interval sloughs and disappears. I may observe, that where the vessel is left undetached from its sheath in the interval of the ligatures, the tube remains, and, although shrunk, continues to be nourished.

" 7. The organization by blood-vessels, of the lymph obstructing the tube, is distinctly visible in a fortnight after the application of the ligature or compressor."—p. 641—650.

But it may happen that a branch is contiguous to the part where the ligature is applied; in which case it became essential to determine whether the removal of the ligature in this case can be effected with equal security as when no branch is near it. To determine this point also, our author devised and executed a third set of experiments, from which he infers,

" 1. That after the proper application of the ligature, the adhesive process is established in equal time in an arterial trunk, whether its branches are contiguous or remote, and of course independently of the fluidity of the blood.

" 2. That the obstruction of a vessel by lymph is a sufficient safeguard from hemorrhage in ordinary circumstances, and the absence or slow formation of a clot appears to be referrible to some other cause besides the proximity of a branch."—p. 660.

From the consideration of all his experiments, our author is of opinion that a ligature is not requisite to be retained longer than seventy hours; in which time, in general, the "recent obstruction is complete:" but if longer retained, it is apt to induce an ulcerative process, tedious and not always free from danger.

We cannot too highly admire the modesty of Mr. Travers, in yet refraining from pressing the practical application of the facts and deductions he has thus brought forward. It is an example worthy of imitation, as nothing marks the peculiar character of the present generation more strongly, than the hastily drawing general inferences from a scanty stock of facts.

The volume ends with a note "*On the Use of Nitrate of Silver for the Detection of Arsenic*," by Dr. Marcet. The Doctor observes that an objection has been raised to his mode

of detecting arsenic by nitrate of silver, on the ground that if any alkaline phosphate, or phosphoric acid be present, a yellow precipitate is formed, similar to that produced by arsenic when nitrate of silver is employed as a re-agent, and having the property of being soluble both in nitric acid and in ammonia. Phosphate of silver, however, he observes, is easily distinguishable "from the arsenical salt" by its not yielding a white smoke, "or a crystalline sublimate," when exposed to heat in a tube; "and by its forming on charcoal," when urged by the blow-pipe, "a greenish vitreous globule, which is, comparatively, of very difficult reduction."

In juridical cases it should always be remembered, as our author justly remarks, that the *experimentum crucis* is the heating of the yellow precipitate with a little powdered charcoal and dry alkali in a tube; when, if arsenic be present, a metallic pellicle will shew itself on the inside of the glass.

The general correctness with which this volume is printed, is highly creditable to the Council. The plates are excellent.

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## II.

*Traité des Poisons tirés des Règnes Minéral, Végétal, et Animal, ou Toxicologie Générale, considérée sous les Rapports de la Physiologie, de la Pathologie, et de la Médecine légale.* Par M. P. Orfila, M.D. &c. &c. Tome second, 8vo. pp. 682. Paris, 1815.

The value of the first volume of this work, which we had the satisfaction of introducing to the notice of British practitioners, was too justly appreciated, not to excite a general anxiety for the appearance of the second.

Looking at it, generally, it is perhaps less interesting than its precursor, but it is not less important in a medical point of view; and if we are to estimate the comparative value of the two by the judgment, the skill, and the labour which have been requisite for their formation, the balance will undoubtedly preponderate in favour of that which is under immediate consideration. In the Report made to the French Institution by M.M. Percy, Pinel, and Vauquelin, Members of the Class of Physical and Mathematical Sciences, who were appointed to examine into the merits of this volume of the Toxicology, we are informed, that it has exacted the unremitting labour of three years, the performance of more than eight hundred experiments, and that its author has often been obliged to sit up for whole nights, in order to watch the changes produced on the animals submitted to the operation of the different

poisons. To which if we add the disgust necessarily attending these experiments, and the sacrifice of natural feeling which they demanded, we shall have some idea of the debt of gratitude which is due from the public to M. Orfila for these two last parts of his work. In performing our duty as Reviewers, we propose to enter as minutely into the subject, and follow the steps of the author as closely as in our analysis of the former parts; so as, in some measure, to give a concise abridgment of the volume. We are fully aware that the similarity of the operation of many of the substances treated of on the animal economy, and the short notices which our limits oblige us to give of them, may render our labours dry and monotonous: but these circumstances cannot diminish the interest of any details calculated to enlarge the boundaries of Science, to those who regard it as an honour to rank as her votaries. But to our task.

This volume, like the former, is divided into two parts; comprehending, 1st, the class of *acrid* poisons; 2dly, of *narcotic* poisons; 3dly, of *narcoto-acrid* poisons; 4thly, of *septic* poisons; and concludes with the second section of the entire work, which treats of poisoning considered in a general point of view. We proceed to examine each of these in detail.

The *acrid poisons* form the third class of our author's general arrangement of poisons. It contains those substances which have a more or less caustic taste, and, when applied to the skin, excite inflammation, often accompanied with plyctenæ and abrasions of the epidermis, terminating in suppuration. When taken into the stomach their effects are very similar to those produced by the corrosive poisons.

The greater number of the substances in this class of poisons belongs to the vegetable kingdom. In treating of them, M. Orfila first gives the botanical characters of the plant under consideration, and the physical qualities of the part usually employed; and then details his experiments with it upon the animal œconomy; adding cases illustrative of its poisonous effects. In following him we shall omit the botanical characters, unless of those plants which have not been previously described.

Of *White Hellebore* (veratrum *album*). The root, which is the part employed, has an acrid, bitter, disagreeable taste, exciting heat in the throat.

To display its action upon the animal œconomy, M. Orfila details seven experiments. In the first, two grains and a half of the dry pulverized root were given to a small dog. In five minutes it excited violent vomiting; in two hours and a half the respiration was laboured, the mouth filled with froth, and the animal staggered as if vertiginous. This state continued next day, but on the morning of the following he was perfectly well. In the second experiment, the œsophagus of a strong

dog was detached, and an opening made in it, through which two grains of the hellebore powder, inclosed in a piece of paper, being introduced into the stomach, it was tied below the opening. In two hours violent efforts to vomit were made; in eight hours the animal was vertiginous, and died in two hours afterwards. On dissection the mucous membrane of the stomach, the duodenum and jejunum displayed marks of inflammation, but was without any trace of ulceration. There was no sensible alteration in any other organ.

In the third and fourth experiments, the powdered hellebore was applied to a wound made in the thigh, and the dogs muzzled to prevent them from licking the part. When twenty grains were thus applied, nearly the same symptoms, as when the poison was swallowed, were observed to take place; with the addition of convulsions, dilatation of the pupils, and other marks of the brain being strongly affected; and the dog died. On dissection an hour after death,

"a slight oscillatory movement was noticed in the heart; the blood in the ventricles was fluid; the lungs were gorged with blood, were less crepitant than in a healthy state, and studded with black blotches. On the interior of the rectum were many red blotches; but neither the wound nor the mucous membrane of the stomach was much inflamed."—p. 4.

We are rather surprized that the brain was not examined in this case.

In the fifth experiment, a filtered infusion, obtained by treating an ounce of white hellebore with boiling water, was introduced into the stomach of a strong dog, and the œsophagus tied. Nearly the same symptoms occurred as when the powder was used; and dissection displayed similar effects, except that the stomach was found to contain a great quantity of thick mucus.

That the poisonous effects result from that portion of the root which is soluble in water, was proved by the two remaining experiments, in which the residue of the powder after decoction was employed, without producing any deleterious symptoms.

Cases are quoted from *Etmuller*, *Schreder*, *Helmont*, and *Vicat*, to illustrate the poisonous effects of white hellebore on the human body, both when externally applied, and when taken into the stomach; and the following curious remark is quoted:

" *Théophraste* dit que les vignes dans lesquelles il croit de l'ellébore blanc donnent un vin qui fait uriner."—p. 7.

*Of Black Hellebore* (Helleborus niger). To display the poisonous qualities of this root, seven experiments, conducted in the same manner as those with white hellebore, are detailed. The effects were nearly the same; but as the appearances on dis-

section differ, we extract that of the second experiment, in which two grains and a half of the powder were introduced into the stomach of a strong dog, through an opening into the œsophagus, and that canal tied to prevent the ejection of the poison by vomiting.

"The stomach was distended by a considerable quantity of a pulpy matter, in which a part of the powder unaltered was suspended; some deep-red points were observed on the mucous membrane; but in other respects its colour was unchanged: it was, however, ulcerated in some places; the ulcers, which were longitudinal and short, being chiefly seated on the plaits in the inside of the stomach. The muscular coat was reddish; the villous coat of a rose colour throughout its whole extent; and its vessels as if strongly injected with a blackish brown matter. The interior of the duodenum, the colon, and the rectum was very red; but the other parts of the intestinal canal were unaltered."—p. 9.

M. Orfila remarks, in a note upon this passage, that the inflammation of the *rectum* is always observed, although the other parts of the intestinal canal remain unaffected, when an animal survives for some hours the administration of black hellebore root.

The following are the conclusions drawn from the examination of these two species of vegetable poison:

"1. The pulverized root of black and of white hellebore, when applied to the cellular substance, is quickly absorbed, and carried into the course of the circulation, producing violent vomitings and effects on the nervous system similar to those which narcotics occasion, to a degree that the animal soon sinks under them. 2. That their local effect is inflammation, but too slight to occasion immediate death. 3. That they operate in a similar manner when introduced into the stomach, but more slowly and with less intensity. 4. That death does not always follow if the animals be able to vomit; but when this cannot be effected, it is the constant result of a certain dose. 5. That white hellebore root is more active than that of black hellebore. 6. That the poisonous properties of the roots of both species of hellebore reside in those parts which are soluble in water. 7. That the alkaline extract, which forms part of the composition of Bacher's tonic pills, is also very active."

From the consideration of these conclusions, we are of opinion that it may be fairly questioned, whether M. Orfila has not erred in classing these roots under *Acrid Poisons?*

A case of the fatal effects of fœtid hellebore is quoted from the *London Chronicle* of 1768; and a case from the *Oxford Magazine* for March 1779, in which it is stated, that after taking fœtid hellebore, "the individual lost his hair, nails, and even the entire epidermis."

*Of Bryony* (Bryonia *dioica*). The root of this plant con-

tains a very acrid juice, which may be separated either by expression, or by treating it with water; what remains is a sweet and mild fecula. M. Orfila details three experiments with it upon dogs, conducted in the same manner as those we have already described; from which, comparing the facts with those mentioned by writers who have witnessed the effects of bryony on the human body, he concludes:

"1. That bryony root acts upon man in the same manner as upon dogs. 2. That its effects appear to depend more upon the local inflammation it excites, and a sympathetic action on the nervous system, than on its absorption. 3. That its deleterious qualities reside in that portion which is soluble in water."

"Of *Elaterium* (Momordica *elaterium*). The prepared pulp of the fruit of this plant (extrait d'elatérium solide) dissolved in water was employed. From three experiments upon dogs, in which the substance was both introduced into the stomach and into a wound of the thigh, all of which proved fatal, M. Orfila draws the following conclusions:

"1. That the primary effects of Elaterium depend on the inflammation it excites as much as on its absorption. 2. That the sympathetic affection of the nervous system is the cause of the death which follows the administration or the application of this substance. 3. That it also exerts a particular action on the rectum."

It does not appear that the dog experienced any fluid alvine discharges, such as usually follow the administration of elaterium, in small doses, when employed as a remedy in dropsy.

Of *Colocynth* (Cucumis *colocynthis*). Besides the detail of six experiments made upon dogs, and quoting instances from *Fordyce*, *Tulpius*, and *Dioscorides*, of its violent effects on the human body, the following case is subjoined, which was related to M. Orfila by the individual who is the subject of it:

"Lebret, a rag-collector (chiffonier), swallowed three ounces of coloquintida, in the hope of curing a gonorrhœa, under which he had suffered for some days. He was very soon attacked with sharp pains in the epigastrium, and violent vomiting. In two hours he had several abundant stools; the abdomen was drawn up; his vision became obscure; he heard with difficulty; and a slight degree of delirium supervened, which was succeeded by vertigo. He was made to drink plentifully of milk, which produced vomiting; and ten leeches being afterwards applied to the abdomen, the symptoms gradually subsided."

The conclusions the author draws from his experiments are:

"1°. That the effects of colocynth depend chiefly on its local action, and the sympathetic irritation of the nervous system: 2°. That it is nevertheless absorbed, carried into the course of the circulation, and acts also directly upon that system and upon the rectum: 3°. That the soluble portion of the poison and that which is insolu-

ble, are equally active: 4°. That it appears to operate in the same manner upon men as upon dogs."

M. Orfila explains in a note, that the inflammation which elaterium and colocynth produce on the rectum, while the small intestines appear nearly in a natural state, is to be ascribed to the rapidity with which these substances traverse the small intestines, and their remaining longer in the stomach and rectum.

*Of Gamboge*, (gomme-gutte); a gum resin obtained from the Stalagmitis *cambogioides*. The external characters of this substance, and its solubility in water and alcohol, are well known. We may however notice, that a solution in the liquor potassæ, which dissolves it entirely, is not altered by the addition of water; "but it is decomposed by the acids, which throw down a very beautiful yellow precipitate, soluble again in an excess of acid."

From M. Orfila's experiments with this substance upon dogs, it appears,

"1°. That a large dose of gamboge may be swallowed by dogs who retain the power of vomiting, without proving fatal. 2°. That when they are deprived of that power, death follows its exhibition; which does not appear to depend on its absorption, but on the energetic local action it exerts, and the sympathetic irritation of the nervous system. 3°. That it rapidly destroys life when applied to the cellular tissue, and that its effects are analogous to those of an extensive burn, without the production of an eschar."

Of *Flax-leaved Daphne*, Garou (Daphne *gnidium*). The bark of this plant, which is the part employed in the experiments of our author, is generally in long, thin, very flexible pieces, covered with a shining brown epidermis, and yellowish on its internal surface. This bark is inodorous, its fracture fibrous, and its taste acrid and burning. When taken into the stomach of a dog, provided he be prevented from vomiting, and when applied to a wound, it proved equally fatal. On dissection of the dog into whose stomach it was introduced, the stomach and whole intestinal canal exhibited marks of the most violent inflammation; but where the bark was applied only to a wound, no alteration of the stomach was apparent. From these experiments it is concluded,

"1°. That the bark of Daphne *anidium* is not absorbed. 2°. That it produces a powerful local inflammation and a sympathetic irritation of the nervous system, to which the fatal effects that follow its administration are to be attributed. 3°. That its effects upon men are similar to those which it exerts upon dogs."

The same results followed the employment of the daphne *mezereum* and *cneorum*.

Of *Ricinus* (Ricinus *communis* vel *palma Christi*). The

night and in the shade, than upon its milky juice. He collected a quantity of this gas in a receiver covered with black paper, and persuaded his brother, who was very susceptible of the effluvia of the rhus, to plunge his hand in it.

"As soon as it was immersed, he felt a burning sensation, which was followed by inflammation, induration, and swelling of the part. The same experiment, repeated with gas collected at mid-day, and in a receiver exposed to the sun, produced no such effect."—p. 48.

These facts, says M. Orfila, tend to prove,

"1. That the active part of the Rhus *radicans*, or *toxicodendron*, is disengaged in a gaseous state while it does not receive the direct rays of the sun. 2. That it operates like the acrid poisons. 3. That the aqueous extract, whether administered internally or applied to the cellular tissue, produces local irritation followed by a more or less intense inflammation; and exerts a stupifying action on the nervous system after being absorbed. 4. That it acts in a similar manner when injected into the jugular vein."

The Rhus *vernix* produces similar effects.

Of the *Pasque flower* (Anemone *pulsatilla)*, Teigne-œuf, Coquelourde, Herbe-au-vent. From the author's experiments and the observations of other writers, it appears,

"1. That the anemone *pulsatilla* excites a very violent inflammation of the parts with which it comes in contact. 2. Is absorbed and carried into the course of the circulation. 3. Appears to stupify the nervous system. 4. That it probably also exerts an irritative action on the lungs and stomach. 5. That its deleterious properties reside in every part of the fresh plant; and, 6. That its powers are much weakened, and almost altogether destroyed, when it has been dried."

Cases are quoted from various authors to shew, that Anemone *pratensis*, *sylvestris*, and *nemorosa*, produce nearly similar effects; and M. Orfila concludes, that it is probable the A. *palmata*, *narcissiflora*, and *ranunculoides*, are equally poisonous.

Of *Wolf's bane*, (Aconitum *napellus*,) napel. Every part of this plant, when in a recent state, produces, on being chewed, a sensation of heat and pain in the mouth and throat.

The author's experiments to ascertain the action of aconite upon the animal system are extremely interesting. Eight were made with the extract purchased at the shops of different druggists; and although death was the consequence of its introduction into the stomach, its application to a wounded surface, and its injection into the jugular vein, yet the effect was slowly produced, and required the doses to be considerable. M. Orfila conceiving, therefore, that this was to be attributed to the extract being, too generally, prepared by evaporating a strong decoction of the plant at a high temperature, and the consequent dissipation

of the volatile principles, with the decomposition of some of the other parts, repeated his experiments with extract properly prepared by M. Richard, Professor of Chemistry and Pharmacy at the Hôpital de la Charité. On this subject the following remarks are worthy of quotation:

"1. That extracts, prepared by expressing the juice of the fresh plant and evaporating it in a water-bath, are incomparably more active than those obtained by any other process. 2. That they are of a yellow colour, instead of being black, as is the case with those found in the shops; and which is the consequence of decomposition by heat. 3. That the extracts usually sold produce very different effects on the animal œconomy, and often possess no virtue whatever."

The more powerful action of the extract prepared by M. Richard was extremely evident, both in the violence of the symptoms and the shorter period in which death was produced. The principal symptoms were, vomiting, extreme mental agitation, vertigo, and convulsions; and the appearances on opening the body, when the poison had been swallowed, were those of inflammation of the mucous membrane of the stomach and duodenum, and a congestion of black coagulated blood in the ventricles of the heart. In confirmation of his own experiments, others by Wepfer, Bonet, and Mr. Brodie are added; and several cases of the deleterious effects of the recent plant when eaten, are quoted from the Philosophical Transactions*, Mathiolus†, Willis‡, and Albertus§, all of which tend to warrant the following inferences:

"1. That the juice of the leaves of aconite introduced into the stomach or the rectum, or injected into the cellular tissue of dogs, excites deleterious effects, quickly followed by death. 2. That the root of the plant has even a more powerful influence than the juice of the leaves. 3. That the aqueous extract prepared with the expressed juice of the fresh plant, possesses nearly the same poisonous properties as the juice itself; whilst it is very considerably less active when it has been prepared with the decoction. 4. That the resinous extract is more energetic than the watery extract. 5. That these different preparations are absorbed, carried into the circulation, and act upon the nervous system, particularly upon the brain, producing a kind of mental alienation. 6. That they also excite a local irritation and an inflammation more or less intense. 7. That they appear to act in the same manner upon men as upon dogs."

Cases are also quoted from different authors in proof of the poisonous effects of Purple Wolf's Bane, Aconitum *Cammarum*;

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* *Phil. Trans.* vol. xxxviii. p. 287.

† *Mathiolus*, in Dioscorid. ed. C. Bowels, p. 768.

‡ De Anima Brutorum, p. 289.

§ Jurisprudentia Medica. t. vi. p. 714.

Aconitum *anthora*, the root of which was improperly regarded by the ancients as the antidote of the other species of aconite, and was therefore named *wholesome* Wolf's-bane; and Aconitum *lycotonum*, Great Yellow Wolf's-bane.

Of *Common Celandine* (Chelidonium *majus*). Experiments with the aqueous extract of this plant, both internally administered, and applied to a wounded surface, demonstrated,

"1. That its extract produces deleterious effects, which are followed by death. 2. That these appear to depend equally on the local irritation which it excites, on absorption, and on its action on the nervous system. 3. That it appears to act upon the lungs."

Of *Stavesacre* (Delphinium *staphysagria*). From the experiments with the seeds of this plant our author concludes,

"1. That stavesacre is not absorbed; but its deleterious effects arise from the local irritation it produces, and a sympathetic action on the nervous system. 2. That the part soluble in water is the most active; and that its local effects were more intense where it was moistened before it was applied to the cellular tissue."

In a note M. Orfila observes, that in every instance where the nervous system had been affected, the brain was examined after death; but in scarcely any case did that organ appear altered either in its structure, colour, or consistence.

Of the *common Daffodil*, Narcisse de prés, (Narcissus *pseudo-narcissus*). The experiments with this plant ascertained,

"1. That the extract of *pseudo narcissus* excites a local irritation, but not to an intense degree. 2. That it is quickly absorbed, producing symptoms that are soon followed by death. 3. That it is emetic. 4. That it appears to act upon the nervous system, destroying the sensibility, and upon the mucous membrane of the stomach; but its action is most energetic when it is applied to the cellular tissue."

Of *Hemlock Dropwort* (Ænanthe crocata). This plant has frequently been eaten by mistake for parsley. From the number of cases of its fatal effects on record, M. Orfila conceived that any further experiments were unnecessary to prove its poisonous properties; and has, therefore, merely quoted several of these from various sources. It excites a very great local irritation, and acts also very powerfully upon the nervous system.

Two cases of the fatal effects of the root of Ænanthe *fistulosa* are also related.

Of *Hedge Hyssop* (Gratiola *officinalis*). M. Orfila details six experiments made upon dogs with the extract of this plant; from which it appears,

"1. That it induces an acute local irritation. 2. That it is apparently not absorbed, but sympathetically affects the nervous

system. 3. That it is much more active when injected into the veins."

Of *Jatropha curcas*, pignon d'Inde.—This species of Jatropha is a native of the warmest parts of America; and, like the greater part of the genus, possesses very powerful poisonous qualities. The seeds are oval, oblong, convex on one side, and obscurely angular on the other, nearly cylindrical, and surrounded with two tunics, the exterior of which is crustaceous, friable, and black. The kernel, when merely pressed between the fingers, exudes an oily matter.

Four experiments made upon dogs with these seeds, proved,

"1. That they possess very powerful poisonous properties. 2°. That they are apparently not absorbed; but their deadly effects depend on the intensity of the inflammation they excite, and their sympathetic action on the nervous system. 3°. That they act more violently when introduced into the stomach, than when applied to the cellular tissue."

The poisonous effects of Jatropha *manihot* and *multifida* are also noticed.

Of *Squill* (Scilla *maritima*). The poisonous effects of squill, even when employed in small doses as a diuretic, has occasionally been productive of symptoms, which could only be explained on the supposition of its operating as a poison. From the experiments of our author upon dogs, he concludes,

"1°. That the fatal effects of squill depend chiefly on its absorption and consequent action on the nervous system. 2°. That the lungs do not suffer any organic change; the accelerated respiration apparently depending on nervous influence. 3°. Local irritation, however, is excited, which is the more intense the more slowly the animal dies. 4°. That it often excites nausea and vomiting."

Of *Wall Pepper Sedum* (Sedum *acre*), joubarbe des toits. Large doses of the juice of this plant given to dogs produce death by exciting a powerful local irritation and consequent injury of the nervous system.

Of *Meadow Crow-foot* (Ranunculus *acris*), Renoncule des prés. Almost the whole genus Ranunculus possesses acrid and poisonous properties, and destroys life when taken into the stomach. This species, when applied to the temples, excites great pain, an insupportable heat, and stiffens and ulcerates the joints whenever it is applied to them.

R. *Sceleratus*, Marsh Crow-foot, "is employed," says our author, "by the mendicants on the Continent to produce ulcers for the purpose of exciting compassion." Plenck and Kraft proved its poisonous properties by giving it to dogs.

R. *Flammula*, small Spear Wort, is equally acrid and poison-

nous. "Whole flocks have perished from having grazed, in spring, where this plant abounded."

The other species, the poisonous qualities of which have been determined, are—R. *bulbosus*, *ficaria*, *thora*, *arvensis*, *alpestris*, *polyanthemos*, *illyricus*, *asiaticus*, *aquatilis*, *platanifolius*, *breynius*, and *sardous*. All these species of Ranunculus and their extracts excite,

"1°. Acute inflammation of the surface to which they are applied. 2°. Their fatal effect results from the sympathetic action on the nervous system. 3°. They do not appear to be absorbed."

The remaining vegetable acrids are very succinctly treated of: we will, therefore, do little more than name them. They are,

1. Rhodo-dendron *crysanthum*. Golden-flowered Rhododendron. The strong decoction acts as an emetic, and inflames the surface to which it is applied. R. *ferrugineum* is equally poisonous.

2. Fritillaria *imperialis*, Crown imperial. This plant is regarded as extremely acrid by many authors. M. Orfila gave it to dogs, who died in less than sixty hours afterwards; but "we could not discover," says he, "the smallest trace of redness or inflammation of the alimentary canal."

3. Pedicularis *palustris*, Marsh Louse-Wort, according to Gleditsch and Gunner, proves fatal to sheep and kine.

4. Cyclamen *Europæum*, European Sow-bread, is a virulent poison, exciting violent vomiting and hypercatharsis, both when swallowed and when it is applied externally to the navel.

5. Plumbago *Europæa*, European Lead-Wort. "Sauvage states that the workmen employed in extracting a yellow pigment from this plant, cannot continue their work more than six hours without experiencing acute head-ache."

6. Seeds of *sabadilla* inflame the surface to which they are applied.

7. Colchicum *autumnale*, Meadow Saffron. A variety of contradictory opinions exist with regard to the deleterious properties of this plant; and our author remarks that he has given two or three of the recent bulbs, bruised, to dogs, in the month of June, without any sensible effect being produced. It is, however, undoubted that a large dose of the recent bulb has produced vomiting, purging, inflammation of the stomach and bowels, and death. M. Orfila does not seem to be aware that it is the active ingredient in the *eau medicinale*.

8. Convolvulus *scammonea*, Scammony, in an over dose, produces ulceration of the stomach.

9. Cerbera *ahovai*. The fruit of this plant is very deleterious; and the wood, thrown into a pond, poisons fish. The fruit of C. *manglias* is acrid and emetic.

10. Cynanchum *erectum*, and *vimiale*, are both poisonous.

11. Lobelia *syphilitica*, Blue Cardinal Flower, is acrid, emetic, and purgative. L. *Longiflora* is called in Spanish *rabientu Cavallos*, because it kills horses.

12. Apocynum *andro-sæmifolium*, *cannabinum*, and *venetum*, Fly catching, hemp-leaved, and spear-leaved Dogbane, yield a milky juice, which inflames and ulcerates the skin.

13. Asclepias *gigantea*, Tall Swallow Wort. Its juice, according to Bauhin, produces a mortal hæmorrhagy: and A. *vincetoxicum* kills dogs, by exciting inflammation of their stomachs.

14. Hydrocotile *vulgaris*, Marsh Penny Wort, has a very acrid taste, and appears to be deleterious.

15. Clematis *vitalba*, *flammula*, *recta*, and *integrifolia*. All these species of clematis produce pustules and excoriations when applied to the skin, and a fatal inflammation of the stomach when swallowed.

16. Pastinaca *sativa*, Wild Parsnep. Its root produces vertigo and delirium, with heat in the stomach, mouth, and eyes, and swelling of the lips.

17. Sælanthus (Scleranthus?) *quadragonus*, *Forskalii*, and *glandulosus*, are acrid, and said to be poisonous.

18. Phytolacca *decandra*, branching Phytolacca, when full grown, is acrid, and produces vomiting and purging.

19. Croton *tiglium*. One grain of the seeds of this plant purges. The oil expressed from them is very acrid.

20. Arum *maculatum*, *dracunculus*, *dracontium*, *colocasia*, *esculentum*, *virginicum*, *arborescens*, and *seguinum*, are all acrid. A case is related from Bulliard's *Histoire des Plantes vénéneuses de la France*, of three children who had eaten freely of the leaves of the *maculatum*. They were seized with horrible convulsions and swelling of the tongue. Two of them died; but the third, who was stronger, was saved by bleedings, and plentiful dilution, with tepid water and olive oil.

21. Calla *palustris*. The root has a burning taste.

From the consideration of the vegetable acrids, M. Orfila passes to that of *Nitrate of Potass*, the deleterious and often fatal effects of which in large doses has been long known to practitioners of medicine: in farther proof, however, of which, four experiments upon dogs, and several cases from the writings of different authors, are brought forward. The general symptoms are, cardialgia, nausea, painful vomitings, purging, convulsions, syncope, feeble pulse, and cold extremities, tearing pains of the stomach and lower belly, laborious respiration, and death. Dissection exhibits extensive inflammation of the stomach and intestines. From these facts our author concludes,

"1. That nitrate of potass introduced into the stomach of dogs or of men, acts like the acrid or the corrosive poisons. 2. That it

occasions death when it is taken in doses of two or three drachms (gros), and is not vomited. 3. That it appears to act directly upon the mucous membrane of the alimentary canal, and subsequently upon the nervous system, producing stupefaction. 4. That it is not absorbed when applied to the cellular tissue, and consequently in this case produces only local effects. 5. That the opinion of Tourtelle, a physician at Bensançon, who believes that this salt operates like the other neutral salts, is not admissible."

Of *Chlorine*, (Gaz muriatique oxygéné, chlore). After giving a sketch of the chemical relations of this gas, M. Orfila illustrates its action on the animal œconomy by the detail of two experiments upon dogs, and adopts the opinion of *Nysten*, that it is not absorbed when respired pure; and appears to kill the animal by its powerful local irritation of the bronchiæ, death taking place before the asphyxia from black blood can occur. Three experiments are added to shew, that when dissolved in water its effects are analogous to those of the other mineral acids.

Of *Nitrous Acid Gas* (Gaz Acide Nitreux). A case is quoted from the *Dictionnaire des Sciences Medicales*, of a manufacturer of aqua-fortis, who was killed by inhaling accidentally this gas. Our author adopts the following rationale of its operation:

"Nitrous acid gas, which is composed of nitrous gas and oxygen, appears to act, 1st, by irritating powerfully the bronchiæ and small pulmonary vessels; 2dly, by producing a change in the blood analogous to that produced by nitrous gas."

Liquid nitrous acid acts in the same manner as *nitric acid*.

Of *Sulphurous Acid Gas*, (Gaz Acide Sulfureux,) is extricated when sulphur is burnt in the open air, or in oxygen gas, and is as deleterious as the former when respired, producing death by the irritation it excites in the lungs.

Our author next takes a view of the symptoms that characterize the administration of the acrid poisons, and the injuries of tissue produced by them, particularizing those of the mouth, œsophagus, and alimentary canal, the lungs, the heart, and the brain; and concludes.

"1. That in a case of poisoning, it is extremely difficult to determine from the simple lesion of the internal organs, whether the poison employed belonged to the class of the acrid or that of the corrosive poisons. 2. That even if it be ascertained by chemistry that the poison did not belong to the class of corrosives, and that it undoubtedly belonged to the class of acrids, it cannot be decided by the examination of the body alone, what particular poison produced the fatal event, the local effects of all the acrids being nearly the same. 3. That by attending to the degree of inflammation, however, we may ascertain that the poison has not been a narcotic or narcoto-acrid, as the inflammation excited by these is comparatively very slight."

Some excellent observations follow on the general action of acrid substances upon the animal, which we regret our limits prevent us from abridging.

With regard to treatment of poisoning by the acrid poisons, our author commences his inquiry by the question—"Existe-t-il quelque antidote des poisons âcres?" In reply he remarks, that if we are to consider a counter-poison only as a substance capable of decomposing the poison in the stomach, and forming it into a new and inert compound, we must admit that there is no antidote for the acrid poisons, owing to these being derived chiefly from the vegetable kingdom, the analysis of the subjects of which is too little advanced to enable us to ascertain the nature of the poisons they contain, and consequently the re-agents necessary for their decomposition. It is not, however, impossible that Chemistry may still surmount this obstacle. "Quelle est donc," he demands, "la conduite que doit tenir le medecin appelé pour une maladie de ce genre?" The following is the mode he proposes.

If the poison have produced acute inflammation and consequent sympathetic affection of the nervous system, the antiphlogistic treatment should be adopted, after having encouraged vomiting by means of copious dilution with tepid mucilaginous fluids, and even cold water. Emetics, vinegar, and every substance which can in any degree augment the irritation of the parts already over excited, must be avoided. If the vomiting became violent, some drops of laudanum (de laudanum liquide de Sydenham) should be given, and the same means employed as our author recommended in cases of poisoning by the corrosive poisons.

If the poison be of the number of those which are rapidly absorbed, and powerfully affect the nervous system, producing stupor and coma, coffee and small doses of camphor should be exhibited; and if these remedies be rejected we should resort to glysters and frictions, and demulcent beverages. But if a poisonous substance of the nature we are considering does not excite vomiting, a circumstance, our author remarks, of rare occurrence, emetics must then be exhibited. In the event of the nervous system being highly excited, he recommends opiates and other quieting remedies; but does not notice venesection, which is the more surprising, as its beneficial effect is noticed in some of the cases quoted to illustrate the effects of the particular poisons.

"We may, therefore," concludes our author, "reduce every thing regarding the treatment to the two following precepts: 1. To encourage vomiting by copious dilution with mucilaginous liquids, at least when the poison does not occasion of itself sufficient evacuations. 2. To appreciate the nature of the secondary phenomena, and to combat them by appropriate means, which must necessarily differ according to the description of the injury sustained."

*(To be concluded in our next.)*

# PART III.

## SELECTIONS.

*On the Deoxidation of the Leaves of Cotyledon calycina.* By BENJAMIN HEYNE, M.D. F.L.S.

" The leaves of the *Cotyledon calycina*, the plant called by Mr. Salisbury *Bryophyllum calycinum*, which on the whole have an herbaceous taste, are in the morning as acid as sorrel, if not more so; as the day advances, they lose their acidity; are tasteless about noon; and become almost bitterish towards evening. This is the case in India, where this plant is pretty generally cultivated in our gardens; and it remains to be seen if the same takes place in the hot-houses in England, where it has been lately introduced.

" I have seen this plant but once in this country, and that was at Mr. Loddiges', at Hackney, about twelve o'clock in the day-time, when I found it quite tasteless. The distance of that place from my habitation has hitherto prevented me from attending to it at an earlier hour in the morning. I have, however, but little doubt it will be found as acid as I have described it to be in India.

" I need scarcely observe, that the acidity which these leaves possess in the morning cannot be ascribed to any thing else than to the oxygen which the plant has absorbed during the darkness of the night, or which has been transferred from other constituent principles of the plant during that period. I think it has been absorbed, as it is so loosely united to its base, that even the light of the day has an immediate effect of disengaging it again.

" Both Priestley and Ingenhousz have concluded, from numerous experiments, that all plants exhale vital air in the day-time, and fixed air or carbonic acid gas during the night; but these conclusions have been called in question by some, from the various results of experiments since made on this subject. What I have now related is therefore not destitute of interest, as it seems incontrovertibly to establish the theory of these celebrated philosophers*."—*Trans. of the Linnean Society of London*, vol. xi. p. 213.

* Although we admit the fact stated by Doctor Heyne, yet we doubt very much the accuracy of the explanation advanced by that gentleman.—EDITORS.

# PART IV.

## FOREIGN MEDICAL SCIENCE AND LITERATURE.

### PRACTICE OF MEDICINE.

I.—The following observations upon the great efficacy of Salivation in different chronic nervous affections, by *Professor Horn*, are not devoid of interest.

"Salivation, on account of the great abuse of it in the management of venereal disorders, has got into ill repute; and the experience of late years has proved, that the excitement of this highly troublesome state, in by far the greater number of cases of syphilis, is not only superfluous, but sometimes even hurtful and dangerous. Hence the use of this remedy is, in general, less frequent; and a conviction has taken place, that in the majority of cases, the administration of mercury in doses sufficient to induce complete salivation, should be avoided. On the other hand there is no doubt, but that there are states of syphilis which do not give way to lenient measures, but rather require such a vigorous attack upon the lymphatic system, as will excite a complete salivation.

"Within the course of the latter months, I have found frequent opportunities in the Clinical Institute for convincing my audience how beneficial the excitement of a continued salivation might prove in different species of obstinate nervous complaints, which defy almost every other remedy. Among those, I reckon some cases of inveterate gout, fixed rheumatism, incipient palsy, stiffness of joints, inveterate ischias, and hemicrania. Among my patients were several who had been treated, for three, six, and even nine months, with the remedies commonly recommended by most practitioners, but without any decisive effect. Among the remedies employed, were a number of different outward applications, as issues, moxa, and sulphur, vapour and animal baths. As efficacious as these remedies prove in some cases, yet in those referred to, they only produced a slight or temporary effect. We have therefore more reason to admire the surprising influence of a continued salivation on those cases; a remedy, the use of which we hitherto only ventured upon, when the powers of digestion were unimpaired.

#### Case.

"A. B. forty-two years of age, short and stout in stature, and born of healthy parents; his mother having died of an

acute disease, and his father of apoplexy. He passed through the infantile disorders with ease and safety, and for a long series of years enjoyed perfect health. His body was strong and muscular, his shoulders broad, the neck short and thick, and face full and florid. He had served eighteen years as a hussar, and was of course exposed to all the influences attending such a life. Since his thirty-eighth year he observed an inclination to vertigo, which increased on stooping, in a low position of the head, or after bodily exertions. His face became red when in the least over-heated; his eyes burnt, and tinkling in the ear succeeded, together with anxious dreams at night. These circumstances occurred whenever his occupations were fatiguing and over-heating.

"In the Spring of 1811, he was obliged to expose himself again to violent colds and over-heatings, whence arose a rheumatic affection in all his limbs; and this evil increasing from month to month, he was at last obliged to give up his employment, which was that of an ostler. A great drowsiness took place at the same time, so that even by day, although he could do but little work, he was constantly sleeping. One morning when about to rise, he found it impossible to open his right eye, his mouth stood awry towards the left side, his sense of hearing on the right side was impaired, and his face and extremities on that side benumbed, and without feeling. He did not perceive any internal alteration, but had some inclination for food, and all secretions and excretions remained natural. The rheumatic sensation he had previously experienced now increased every day, and fixed particularly in the joints of the shoulder. The extremities on the left side suffered more than those on the right, and this complaint soon became so violent, that the upper ones were almost completely paralysed.

"The patient was now conveyed to a military hospital, where he was treated for some months with sulphuric remedies, frictions of different kinds, sulphur baths, and divers other diaphoretic and antarthritic remedies; but without the least effect. The pains had indeed somewhat decreased; but the palsied state, particularly of the upper extremities, had rather become worse.

"About the middle of December 1811, he was brought to the Clinical Institute, when he was observed to be in the following condition: the upper lid of the right eye was palsied, so that the eye could not be completely shut; the tongue could not be stretched out without an inclination to the left; and the mouth had the same oblique direction. He could only raise his hands and arms up to the mouth, but to turn them backwards or up to the head was utterly impossible; and he felt a sensation of numbness in his arms; his feet were in a similar

condition, though he felt a little more power of moving them. His walk was also tottering. The patient besides complained of frequent vertigo, his eyes were affected, his face full and quickly flushed, particularly on stooping, and the pulse slow and full. His frame appeared musculous, and fed well.

"The pre-existence of an apoplectic fit could not be doubted; its complication with rheumatism was very probable; the complaint was therefore very difficult of cure, the issue uncertain, the return of apoplexy possible. A number of powerful medicines both internal and external, were exhibited without the least effect. I mention amongst this class the inward administration of flores arnicæ, cortex mezerei, tinctura succini, tinctura arnicæ, liquor ammonii, sabina, camphora, rad. galangæ et sinapis, and emetica. The external applications were Vesicatoria perpetua in the neck and above the right eye, an issue in each arm, friction to the palsied parts; with unguentum lyttæ, unguentum ex tartaro stibiato, linimentum volat. saponatum, oil of turpentine, sulphur, and vapour baths.

"The continued use of these remedies procured some alleviation, particularly a somewhat freer motion of the extremities; but the amendment was not of any importance, although this method was frequently varied, and the doses increased, and were continued till the beginning of February 1812.

"Under these circumstances I resolved to try salivation; and for this purpose administered one grain of mercurius dulcis four times a day. After twenty four grains had been thus taken, such a violent salivation came on, that nearly two quarts of saliva were voided in twenty-four hours. The gums and tongue swelled exceedingly, the smell from the mouth grew very offensive, and small ulcers appeared on the tongue, but no feverish symptoms were perceived.

"On the 11th of February it was already observed, that the patient could shut his right eye completely, protrude his tongue straight forward, and keep his mouth nearly in a proper direction. The suppuration of the issues continued. The ulcers in the mouth increasing in size, and causing much inconvenience to the patient, some ease was procured him by a composition of borax and honey of roses as a liniment. The salivation still went on violently, and the longer it lasted the more perceptible were the symptoms of recovery. On the 12th of February the rheumatic sensations had entirely disappeared; the movements of the extremities were much easier, and the numbness quite gone. Though the mercury was now laid aside, the salivation still continued in a considerable degree, and soon became so excessive, that recourse was had to emetics to confine this secretion. At the end of February, after the salivation had lasted for some weeks, the patient was

completely and permanently cured. The palsied state of the upper eye-lid was quite gone, and the muscular power of the extremities recovered, and their bulk increased; even the vertigo and congestions towards the head, which the patient had been troubled with before, had entirely disappeared. In short, this patient, after having taken the most powerful remedies without any decisive effect, after the salivation was over, left the Institute completely restored.

"For these four months past, I have pursued the same method with the best success, in several similar cases."

II.—The use of *Moxa*, although almost unknown in this country, yet is much resorted to on the continent; the following case, by *M. Barras*, of *Neuralgia in the Spermatic Cord*, treated with it, is not devoid of interest*.

"M. N. aged thirty-three years, of a nervous lymphatic temperament, had enjoyed good health for twenty years. He then contracted a virulent itch, which, having been treated methodically, was cured in twenty-five days. But since that period, he has been subject to a cutaneous eruption, particularly in winter, and when the wind blows with violence from the north, which has resisted various modes of treatment. It does not appear, however, to be contagious, as he has slept with others without communicating it.

"At the age of twenty-three, he was attacked with a violent pain in the right temple, which returned every day about ten o'clock in the morning, and continued until noon; but was soon cured by the application of a blister to the nape of the neck.

"During his twenty-ninth and thirtieth years, M. N. felt, at distant intervals, a painful sensation of dragging at the lower part of the spermatic cord, and the epididymis of the left side. As this inconvenience was transitory only, the patient did not pay much attention to it; except that he was more reserved in his sexual intercourse, in which he had never indulged to excess.

"Towards the middle of his thirty-first year, in the month of June 1809, the sensation of dragging became more violent than usual; and produced a considerable inflammation of the testicle, which was reduced in three weeks by bleeding with leeches, the application of emollient cataplasms and demulcent drinks.

"From this time the pain was unremitting, sometimes

* The case was read at the Académie de Médecine of Paris, 18th of April 1813. Vide *Journal General de Medécine, &c.* tome liv. p. 306.

acute, and sometimes slight. In its violent accesses, which were generally accompanied by erections and involuntary nocturnal emissions, the pain extended, as if by radiation, to the buttock, the thigh, and the leg of the left side, along the course of the vas deferens to the bottom of the bladder, and through the urethra; it excited a frequent desire to make water, and a smarting in passing the urine; and sometimes became so violent, that the patient lost his sleep and appetite, became taciturn, melancholy, and anxious for the removal of the testicle, which was more or less tumified according to the intensity of the pain.

"Leeches, emollients, and anodynes, recommended by two distinguished surgeons of Paris, and employed in every mode for a year, rather aggravated than allayed the pain. Another surgeon then advised a caustic in the thigh, which did neither good nor harm; and a plaister of hemlock and opium, sprinkled over with camphor, which was obliged to be left off in a short time, as it augmented considerably the sufferings of the patient. Cataplasms of bruised hemlock, frictions with camphor liniment, laudanum, "le baume tranquille," and many other similar topical applications, were equally prejudicial.

"Although M. N. never had any venereal affection, yet mercurial frictions were tried, which only increased the violence of the disease. Sulphur frictions, and the internal use of the waters of *Enghien*, employed under the idea that the pain might depend on some psoric virus, were equally hurtful. I also remarked, that the appearance of the cutaneous eruption had no influence on the pain; which led to the supposition that these two diseases were not connected with each other.

"Desperate from his constant sufferings, the patient applied pounded ice upon the spermatic cord, from the inguinal ring to the testicle. This at first produced so much relief, that a speedy cure was anticipated; but after employing it for some time, the suffering of the patient was merely abated, but not radically removed; and it was even obliged to be discontinued, as it excited erections which always renewed the pain.

"In this state of the case, a celebrated surgeon was consulted, who proposed the application of moxa over the course of the spermatic cord, confining its action to the surface of the skin; but before this violent caustic was resorted to, the patient was desirous of trying the effect of a blister over the part to which it was intended to apply the moxa. For a few days, whilst the teguments remained inflamed, the violence of the pain of the epididymis was much diminished; but it returned to its original state as soon as the suppuration was established, and the vesicatory ceased to make itself felt. A seton, introduced on the internal side of the cord, was productive of the same effects.

"After so many fruitless trials, the patient requested the advice of a learned Professor, who had much experience in cases of neuralgia. He recommended all external means to be discontinued; and the internal administration of a vinous infusion of valerian root, which sensibly increased the pain, as well as many other bitters and antispasmodics which were tried. The Professor also added, that it was probable that the disease would cease of itself, and that an atrophy of the testicle might succeed.

"During a year, after all topical applications had been discontinued, except frictions with sulphuric ether, which afforded a little temporary ease, and using a suspending truss, the testicle and the epididymis still retained their natural consistence and bulk. The pain, which was seated chiefly towards the epididymis, was supportable; it did not prevent the patient from following his usual occupations, provided he avoided irascibility, abstained from venereal pleasures, took every possible precaution to prevent erections and emissions, and committed no fault with regard to diet. The smallest infringement, however, of these rules did not fail to renew the pain, which had never completely disappeared.

"Such was the state of the patient when I had the honor of reading the history of his case to the *Académie de Medecine*, on Tuesday the 13th of April, 1813. Many of the Members having suggested the *moxa*, it was applied on the 14th, and in combination with it, by the advice of some of the Members, mustard pediluviums were used. This caustic certainly removed the pain for a short time; but it returned a little on the 24th, after the eschar dropped off. A second application of the *moxa* was had recourse to on the 29th of the same month. The effects were the same as those of the first; that is to say, the pain ceased suddenly, and returned again when the eschar was detached. It has, however, appeared itself only at intervals; and then so very slightly, that the patient has abandoned it to nature.

CHEMISTRY.

III.—*On the colouring Principle of the Blood of Animals*, by M. Vauquelin*.

"1°. *History of the Opinions of Physicians and Chemists previous to Mr. Brande, on the Nature of the colouring Principle of the Blood.*

"Lemery appears to have been the first who demonstrated the presence of iron in the blood. Menghini afterwards endeavoured to ascertain the relation of that metal with this animal fluid.

"Since then the greater part of physicians and chemists

* *Annales de Chimie et de Physique*, tome i. p. 9.

have attributed the colour of the blood to iron; but this metal not being soluble per se in animal fluids, chemists have endeavoured to discover in the blood some substance capable of effecting that solution. A few have attributed it to the mineral alkali or soda, which exist in a small quantity in blood*; whilst others, reasoning on the fact, that blood furnishes, by incineration, sub-phosphate of iron, have regarded phosphoric acid as the required solvent†.

"But these opinions being susceptible of many objections, which their authors were not ignorant of, this interesting subject was subjected to a new examination; and Mr. Brande, an English chemist, had the merit of first demonstrating, by direct experiment, that the colour of the blood depends on a particular animal substance, and not upon iron, as had previously been believed.

"Reflecting that a discovery equally interesting to Chemistry and Physiology deserved to be further confirmed by experiment, I trust it will not be considered improper, even if I should add nothing new to what Mr. Brande has done, to recall the subject to the attention of chemists. I have repeated the greater part of the experiments of Mr. Brande, and found them correct. I have also made several new experiments, and have discovered a simple method of obtaining the colouring principle of blood in a pure state.

"2°. *Process for obtaining the colouring Principle of the Blood in its pure State.*

"A. Take the coagulum of blood, well drained upon a sieve, break it down in an earthen vessel, with four parts of sulphuric acid, diluted with eight parts of water, and heat it to 70° of the Centigrade thermometer, keeping it at that degree of heat for five or six hours.

"B. Filter the liquor while it is hot, and wash the residue with as much warm water as of acid employed; concentrate the liquid until they are reduced one half; then drop in ammonia until there remains only a slight excess of acid. After having agitated the fluid, leave it at rest, and a precipitate of a reddish purple colour will be obtained.

"C. Decant off the fluid portion as soon as it is clear, and pour some water upon the residue, which must be repeated as long as the washings yield a precipitate with nitrate of barytes.

"The precipitate thus washed must be thrown upon a filter of bibulous paper (papier de Joseph), from which, when it is completely drained, it must be taken off with an ivory

* *M. M. Deyeux and Parmentier.*

† *M. M. Sage, Gren, Fourcroy, and Vauquelin.*

spatula, put upon a glass saucer, and left to dry. This is the pure colouring part of the blood.

" This process is undoubtedly more simple and more certain than those proposed by Brande and Berzelius.

" 3°. *Reflections on the foregoing Experiments.*

" E. Sulphuric acid, in dissolving the colouring part of the blood, dissolves at the same time a considerable quantity of albumen and probably of fibrin; but these substances remain dissolved in the liquor, after the colouring principle has been precipitated from it by the ammonia.

" F. The coagulum of blood thrice acted on by the same quantity of sulphuric acid as at first, still apparently retains as much colour as before; and the acid boiled with it, is itself nearly as highly coloured; from which it must be concluded, that a very great quantity of acid is requisite for dissolving all the colouring matter of the blood, or that there are two kinds of colouring matter of different solubility.

" G. It appears, that the albumen is an obstacle to the solution of the colour of the blood in acids; for when the colouring substance is in a pure state, it readily dissolves in these menstrua.

" 4°.—*Properties of the Colouring Principle of the Blood.*

" H. 1. It is neither sensibly odorous nor sapid.

" 2. Mingled with water, it assumes a red venous colour, but is not dissolved in it.

" 3. When dried it is as black as jet, and has the fracture and brilliancy of that substance.

" 4. In its dried state it readily dissolves in acids and alkalies, and communicates to the solutions a purplish red colour. Its solution in muriatic acid does not render turbid the solution of muriate of barytes, which proves that it does not retain sulphuric acid when it has been washed.

" 5. Neither pure Gallic acid, nor the prussiate of potass, produce any change in the colour of the acid solutions of this substance: a clear proof that they contain no iron, whilst in the liquor from which this principle has been precipitated, both these re-agents immediately detect the presence of iron in a notable quantity.

" 6. The infusion of galls which contain tannin throws down a precipitate in the acid solution of the colouring matter, but does not change the colour.

" 7. Submitted to the action of fire in a close vessel, it neither changes form nor colour; it exhales an odour resembling that of animal substances, furnishes carbonate of ammonia and a reddish purple oil, but scarcely any gas.

" 8. After having been thus subjected to the action of heat, it does not dissolve again either in acids or in alkalies; but is

reduced to a carbonaceous state. As this substance does not sensibly change its bulk in this operation, it probably contains much carbon.

" 9. This substance being insoluble in water, there must exist some principle in the blood capable of dissolving it: this is probably the alkali, for a small quantity of it only is required for dissolving this principle. As, however, the colouring matter of the blood is ultimately deposited from the washings of its coagulum, it is probable that it is suspended in the fluid.

" 10. The solution of the colouring principle of the blood in nitric acid diluted with water, suffers no change in point of colour: nitrate of silver does not render it turbid; but acetate of lead forms a brown precipitate in it, and completely destroys the colour.

" 11. The coagulum of blood boiled several times with sulphuric acid, dissolves entirely in a small quantity of potass, from which it is wholly precipitated by muriatic acid, at least in an excess of it: the solution still retains a red colour.

" 12. When, after repeated washings with cold water, the mass of blood is forced from the greater part of the sulphuric acid, the residue readily dissolves in hot water: but the solution which results is not of a red colour; on the contrary, it is brown.

" 13. The albumen of the blood which contains the colouring matter, is deposited after some time when left at rest, and the liquid becomes greenish yellow. But if this colouring matter remain in the albumen until it begins to be deposited, it is re-dissolved, and the liquor re-assumes the scarlet hue, because the ammonia which is developed by putrefaction produces that effect, and the solution which is red becomes scarlet in mixing with the albumen which is yellow.

" 14. If two parts of cold alcohol be poured upon the albumen of beef, after having filtered the liquor and drained the coagulum, by boiling it with 7 or 8 parts of fresh alcohol, the spirit becomes of a beautiful citron-yellow colour; and if this operation be three or four times repeated, the alcohol is no longer coloured, and the albumen becomes white.

" This alcohol evaporated in a retort, leaves a fat oil of a yellow colour, a sweet taste, and a soft consistence.

" 15. After the experiments of Mr. Brande and my own, it is evident, that the blood owes its colour to a peculiar animal matter produced by the vital powers, and particularly by the influence of respiration; and therefore the previous opinion of Chemists and Physicians, which attributed this property to iron, ought to be abandoned, at least as to its being the sole cause, since this principle can be obtained in a separate state free from this metal.

OBSERVATIONS.

"Although, by the above-mentioned means, a colouring matter may be drawn from blood, in which the most delicate tests cannot discover the smallest trace of iron, it must nevertheless be acknowledged that this colouring substance differs from that of the entire blood; which is, as every body knows, of a lively red colour, analogous to scarlet. This principle, when separated from the blood, has a purplish red colour, and is even violaceous; but appears greenish by refraction.

"It is true, however, that the blood when kept for some time from the influence of the air, contracts a vinous purple hue; but whenever it is again exposed to the air, it resumes the vermillion tint it had at first, but no change of this kind happens to the colouring principle, which does not change in the air.

"Does this matter suffer any change from the acids and the heat which are obliged to be employed to separate the other substances which accompany the blood? or is it to the mixture or to the combination of this principle with the other elements of the blood that its colour is to be ascribed?

"If the oil of which we have spoken above be always present in the blood of man and of animals, this fluid must be a compound of four essential or constituent elements, viz. 1°. Albumen; 2°. Fibrin; 3°. Colouring matter; 4°. A fat and mild oil.

"I have, after the example of Mr. Brande, endeavoured to fix upon cotton, by means of different mordants, the colouring matter of blood, dissolved in acids or in alkalies; but I have obtained no satisfactory result; and therefore I doubt whether this substance can ever be employed with success as a pigment."

# *PART V.*

# MEDICAL AND PHYSICAL INTELLIGENCE.

## I.—SOCIETIES AND LECTURES.

LECTURE IV.—*Of the Alcalies in general, and on Ammonia in particular.* By Professor BRANDE, at Apothecaries' Hall, London.

THE volatile alcali, or ammonia, and the two fixed alcalies, or potash and soda, are of considerable use in pharmacy; and the history of their preparations constitutes an important part of most Pharmacopœiæ.

The alcalies are soluble substances which convert vegetable blues

to green, are possessed of causticity, acting with considerable energy upon most varieties of animal substances. With oils they combine to form soaps. They unite with the acids, and form a class of bodies called neutral salts, because in them neither the properties of the acid nor alcali are evident; they are possessed of entire new properties, and are mostly mild and inert compared with their component parts. The two fixed alcalies are oxides of peculiar metals. Potassium, or the metallic base of potash, is a substance in lustre and colour resembling lead; it is lighter than water, and has, therefore, been by some called a metalloid: but great specific gravity cannot be regarded as an essential character of the metals; it has an extremely powerful attraction for oxygen, with which it unites in two proportions: the protoxide is the alcali as it exists in solution of pure potash; the peroxide is generally contained in the dry caustic potash of the shops; and accordingly, when that substance is dissolved in water, oxygen is given off, and the protoxide formed; for the peroxide is decomposed by water. Sodium or the base of soda, is a metal in appearance much resembling potassium; it is rather heavier, and equally greedy of oxygen, with which it unites in larger proportion than potassium. 100 parts of dry potash consist of potassium 83, oxygen 17.

100 parts of dry soda contain, sodium 75, oxygen 25.

The usual state of these alcalies, when called *pure*, is that of hydrate, a triple compound of the metallic base, oxygen, and water.

Ammonia, under particular circumstances, also appears capable of metallization, but its base has never been examined in an insulated state. If an amalgama of mercury and potassium be placed upon sal ammonia or carbonate of ammoniac, the potassium is converted into potash and the mercury increases in bulk, solidifies and crystallizes, and when exposed to air, this singular alloy exhales mere ammonia.

As ammonia is composed of hydrogen and nitrogen, it must be inferred either that those bodies are metallic oxides, or when conjoined produce a metal: but it is very remarkable that these changes in the character of the quicksilver are unattended by any appretiable increase of its actual weight, and with a considerable diminution of its specific gravity.

The phenomena attending the metallization of ammonia are amongst the most striking in chemical philosophy, and seem to throw a gleam of light upon that important subject, the nature or composition of the metals, respecting which we may plausibly look forward for more certain information.

Ammonia, in its pure state, is a gaseous body, considerably lighter than common air; its odour pungent in the extreme when pure, but agreeably stimulating and reviving when largely diluted with atmospheric air; it extinguishes flame, and is fatal to animal and vegetable life. It is extremely soluble in water, which takes up several hundred times its bulk; and in this state it is commonly employed under the name of liquid ammonia. It is composed of 13 parts, by weight, of nitrogen, and 3 hydrogen. It may be resolved into its elements by passing it through a red-hot tube. This acrimonious and soluble body is then resolved into its comparatively inert and insoluble component parts. Its constitution is synthetically demon-

strated, by causing nitric acid to act upon tin. Nitric acid contains the elements of ammonia, which, during the action of the tin, are first liberated and then re-united, so as to produce this alcali.

It is now time to turn from the general chemical history of the alcalies to their pharmaceutical uses. Ammonia stands first in the Pharmacopœia; and of it we have three preparations—the subcarbonate—the aqueous solution, under the name of liquor ammoniæ—and the solution of acetate of ammonia, under the name of liquor ammoniæ acetatis. The liquor ammoniæ of the present Pharmacopœia is a much preferable solution of ammonia, and the directions for its preparation are more rational than those of the last Pharmacopœia; but still it is open to objections. The quantity of lime is too great; sal ammoniac only requiring rather more than half its weight for decomposition; whereas here, 8 parts of sal ammoniac have 6 of lime. The precautions given in the Translation concerning the purity of the lime are needless, as carbonate of lime requires more heat than this process admits of, for the production of carbonate of ammonia. The liquor ammoniæ of the last Pharmacopœia contained upwards of 25 per cent. of ammonia. The present only contains about 10 per cent. so that ℥j. of the former was equivalent to ℥ij.ss. of the present; yet in the table of doses they remain the same, ♏x. to xx.; but it is to be hoped no practitioner will be found pursuing his profession upon the mechanical principles of this absurd table of doses.

Mr. B. next made some remarks on the preparation of the subcarbonate of ammonia, and on its composition: it contains about 50 per cent. of carbonic acid, 39 ammonia, 11 water.

A solution of this salt is ordered in the Pharmacopœia, under the name of liquor ammoniæ subcarbonatis: 4 parts of water, by weight, will barely dissolve 1 of this salt. These are the proportions of the present Pharmacopœia, adopted without notice from Mr. Phillips. In the last Pharmacopœia we were directed to dissolve 8 oz. of the subcarbonate in 16 of water, which was impossible. Though the name and preparation of this article are both altered, no notice whatever is taken of either change in the present Pharmacopœia.

These preparations of ammonia stand high in the Materia Medica as stimulants. They also are antacids and emetics. The internal use of ammonia principally operates upon the nervous system without materially affecting the pulse or the vascular system: hence its use in a variety of diseases marked by nervous debility with increased vascular action, or with an irritability of the circulating system. Here the stimulants belonging to the class of astringents would be contra-indicated. In many cases of paralysis, therefore—in many affections of the head, &c. ammonia is a highly valuable stimulant. The effects of the bite of several venomous reptiles are productive of inflammatory symptoms, attended by the gradual recession of the nervous functions; and here ammonia is especially indicated. It is celebrated in India as a remedy for the bite of snakes; and it becomes an useful antidote to such other poisons as operate in a similar manner. A teacupful of a dilute solution of ammonia, or of the subcarbonate, induces vomiting, and is also useful as assisting the operation of other vomits, especially

where the nerves of the stomach are paralysed) as by poisons, opium, &c.

There are some spirituous preparations of ammonia directed in the Pharmacopœia; but they are of comparative inutility. The spiritus ammoniæ compositæ, or sal volatile of the older authors, is a good and favourite form; and a more sensible, though not strictly economical mode of preparing it, has been adopted. The observations I have to make upon pure ammonia apply generally to these, but the spirit and aromatics sometimes interfere. All the preparations of pure or subcarbonated ammonia are excellent antacids, and their stimulating quality is often favourable to the relief of dyspeptic symptoms in general. When externally applied, they act as stimulants or rubefacients; and accordingly ammonia enters into several liniments. These are of chief use in inflammatory sore throat, in rheumatic inflammation of the joints, and in chronic rheumatism, and in indolent tumours.

The skin of different individuals is so differently susceptible of stimulating applications, that they should be cautiously applied.

Spirit of hartshorn, the liquor cornu cervi, and liquor ossium, are mere aqueous solutions of subcarbonate of ammonia, impregnated with empyreumatic oil, which renders them more heating. How the ammonia is here produced has been fully explained upon a former occasion, when discussing the effects of heat upon animal matter.

The spiritus ammoniæ succinatus is intended as a substitute for the eau de luce; it is a needless incumbrance to the Pharmacopœia. So indeed is the simple *spiritus ammoniæ*, which is only employed to prepare another useless article—the spiritus ammoniæ fetidus.

The only neutral ammoniacal salt of our Pharmacopœia is the acetate. The mere saturation of the vinegar with the subcarbonate would have been sufficient direction for preparing it: there is a double impropriety in laying down quantities arising out of the variable nature of the salt as well as of the acid.

This is the celebrated spiritus diaphoreticus febrifugus Mindereri. It is a very harmless thing, and, when given with plenty of warm water and other diluents, produces diaphoresis. Distilled vinegar generally becomes yellowish when saturated with subcarbonate of ammonia; hence it is customary to filter this solution through a little well-burned charcoal, which renders it quite colourless. It is a very useful external application, as a discutient in glandular swellings, and as an application to inflamed surfaces.

Saline draughts containing lemon-juice saturated with ammonia, have long been ranked among the elegancies or fopperies of physic. The citrat of ammonia is, I presume, as efficacious as the acetate.

Muriate of ammonia is seldom employed, except as an external application. ℥ss dissolved in a pint of water, is sometimes an useful irritating discutient: it is said to be diuretic and diaphoretic; and I have heard of its curing intermittent fevers.

The preparation of this salt is a subject of considerable importance; for it is the source of nearly all the other forms and combinations of the alcali employed in medicine.

Horns, hoofs, bones, previously boiled, and a variety of refuse

animal matter, are distilled, and yield an ammoniacal liquor, and some solid carbonate. The distillation of coal also affords ammonia; and large quantities of ammoniacal liquor are prepared at the different gas works in the metropolis. These products are saturated with sulphuric acid (or sometimes gypsum is used); and the sulphat of ammonia thus formed is ignited with common salt: thus muriate of ammonia sublimes, and sulphat of soda remains as the residue of the operation. This method only answers near large towns, where bones are abundant. A very ingenious method of making sal ammoniac consists in steeping refuse leather cuttings, parchment, &c. after they have been boiled for glue, in the mother liquor of the salt works, called bittern, and then burning them; during combustion they yield sal ammoniac.

Muriate of ammonia has a nauseous urinous flavour; it requires about three times its weight of water for solution. It rises in vapour at a heat a little below redness. It consists of muriatic acid 68, ammonia 34.

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Royal Society.—Feb. 1 and 8. The conclusion of Dr. Wilson Phillip's experiments to ascertain the relation between the sanguiferous and nervous systems, and the ganglia, was read. This paper, which is the third and concluding one on this curious subject, entered into a very wide field of physiological research, and embraced many singular conclusions and general inferences. The author states, that the sanguiferous system can exist independent of the nerves; but the latter can stimulate the former, or retard and even totally obstruct it. He next took an extensive view of secretion, as connected with these symptoms, the ganglia and spinal marrow. Animal heat he considers a secretion. When the fluids secreted by the glands are accumulated, secretion is not therefore suspended; on the contrary, its continuance is necessary to the healthy state of the glands and the other vital functions. Secretion and galvanism he thinks produce similar effects. In conclusion, the author observed, that in all his experiments he had, wherever it was practicable without injury to the result, destroyed the sensibility of the animal previous to the commencement of his operations, and had also avoided all unnecessary repetition of cruel experiments, or any useless waste of animal life.—Feb 15. Mr. Todd, a surgeon of the Royal Navy, presented an account of his observations made on the torpedo *electricus* at the Cape of Good Hope. The peculiar organs of this animal have been described by the late Mr. Hunter. Mr. T. found, that when the electric organs are often excited they lose their power, and the animal dies much sooner. Its first strokes are always the most violent, and grow more and more feeble until quite exhausted, and then the animal dies. The author cut open the little tubes or electric organs in the breast; and by this process the animal lost its electric powers, but continued to live longer than those whose electricity was entirely exhausted. The torpedos subjected to these experiments were smaller than those found in the northern seas, being only from five to eight inches long, and from three to five broad. They were caught by the sailors when fishing

with the seine while the Lion lay at anchor off the Cape. When the fish was held in the hand, the shock never reached further than the shoulder, and often not above the elbow. Some of the torpedos manifested a kind of reluctance to give shocks; others parted with them very freely: hence the author is inclined to believe that it requires a considerable effort in the animal to give shocks, and one which shortens its life. The torpedos were kept in casks of salt water, in which they lived from two to five days. — February 22. A short paper by Sir Everard Home was read, containing some observations on the structure of the feet of some lacertæ, particularly the *gecko*. Sir Joseph Banks noticed, while in Batavia, that the gecko is a very familiar inmate of the houses; and that it could run along their smooth ceilings, having its back downwards, with the greatest ease, contrary to the laws of gravity. He mentioned this circumstance to Sir Everard, and also supplied him with a large one weighing three ounces, in order that he might examine the structure of its feet. The result of his inquiry is, that the feet of the gecko have some resemblance to the *actinia* of those fish which adhere to the sides of ships; that they, at every step, form a partial vacuum below them, which thus enables them to run with their backs downwards.

*Royal Medical Society of Copenhagen.*—In the meeting of November 18, 1815, Professor *Lund* read a treatise upon a very rare case of disorder, in which both eyes of the patient were, by slowly increasing tumours in the sockets, quite pushed out of them. (*Exophtalmia utriusque oculi*). He likewise communicated some new experiments respecting the diuretic power of *sambucus ebulis*.—Professor *Wiborg* read, on the 12th of January 1816, a dissertation upon the nature of a disease observed in cows, (called, in Denmark, French pox) or violent longing for the bull.—In the sitting of February the 2d, Mr. *Jacobson*, Head Surgeon to the Staff, read a dissertation upon the form and destination of that organ called *glandula cephalo-pharyngea* (Winslowii junioris), which has hitherto been little known.—On the 16th of the same month, Professor *Klingeburg*, Secretary to the Society, read an essay on the efficacy of the *calx sulphurata* in the beginning of phthisis pulmonalis.—Mr. *Kiort* read some observations on a remarkable fracture of the skull, attended with contusions, which was successfully treated, notwithstanding about thirty splinters of the cranium, of the entire thickness of the bone, and some of them pretty large, had been removed from the wound.

### III.—PHARMACEUTICAL.

*Opium.*—Prussic acid has been found in opium in Germany; and from this discovery it has been concluded that the narcotic virtue of opium depends on that acid.

*Decomposed Opium.*—A fluid under this name has been sent to us by Mr. Battley. From our experiments, it appears to possess very extraordinary sedative powers. Fifteen drops of it, given to two adults, rendered the pulse extremely small and feeble, excited faintings, and diminished all the vital actions. In doses of from three to six drops, it allays nervous irritations, produces sleep, and has a powerful influence over spasm.

# A METEOROLOGICAL TABLE,

*From the 21st of February to the 20th of March*, 1816,

KEPT AT RICHMOND, YORKSHIRE.

230 Miles NW from London.

| D. | Barometer. Max. | | Barometer. Min. | | Therm. Max | Therm. Min. | Rain Gage. | Winds. | Weather. |
|---|---|---|---|---|---|---|---|---|---|
| 21 | 29 | 65 | 29 | 56 | 42 | 33 | | W.. | 1 Sun.. |
| 22 | 29 | 71 | 29 | 62 | 46 | 39 | | SW... | 1 Sun.. |
| 23 | 29 | 75 | 29 | 63 | 48 | 37 | | SW.. | 1 3 Sun... 2 Cld.. 4 Stl... |
| 24 | 29 | 56 | 29 | 30 | 46 | 39 | | SW... | 1 Sun.. 2 Cloud.. 4 Stl... |
| 25 | 29 | 60 | 29 | 40 | 44 | 33 | 03 | SW....W.. | 1 Sun.. & Sh. |
| 26 | 29 | 69 | 29 | 25 | 41 | 33 | | W.. | 1 Sun.. |
| 27 | 29 | 42 | 29 | 13 | 49 | 31 | | SW....NW.. | 1 Sun.. |
| 28 | 29 | 59 | 29 | 54 | 36 | 26 | | NW.. | 1 Sun.. |
| 29 | 29 | 53 | 29 | 51 | 34 | 24 | | NW.. | 1 Sun... 2 Cld.. 4 Stal... |
| 1 | 29 | 40 | 29 | 22 | 34 | 28 | | NW.. | 1 Sun... |
| 2 | 29 | 09 | 28 | 99 | 38 | 32 | | NE. | 1 3 4 Cloud.. 2 Sun.. |
| 3 | 28 | 82 | 28 | 74 | 38 | 33 | | SE. | 1 Cloud... |
| 4 | 28 | 70 | 28 | 69 | 39 | 31 | | S. | 1 Sh. of Snow. & Sun.. |
| 5 | 28 | 79 | 28 | 68 | 38 | 28 | | SW.. | 1 Sun.. & Sh. of Snow. |
| 6 | 28 | 72 | 28 | 66 | 36 | 32 | | NE.E. | 1 Sh. of Snow. |
| 7 | 28 | 77 | 28 | 76 | 38 | 32 | | NE. vble. | 1 Sh. of Snow. |
| 8 | 29 | 14 | 28 | 97 | 37 | 30 | | N.. | 1 4 Sh. of Snow. 2 Sun. |
| 9 | 29 | 33 | 29 | 30 | 37 | 22 | Melted Snow. | N.. | 1 Sh.of Snw. & S.. 3 S... |
| 10 | 29 | 43 | 29 | 26 | 37 | 32 | 59 | W..SW.. | 1 Sun... |
| 11 | 29 | 19 | 29 | 09 | 45 | 38 | 15 | SW..SW... | 1 Sun. 2 Rain.. 4 Moon.. |
| 12 | 29 | 10 | 28 | 99 | 46 | 38 | | SW.. | 1 Cloud.. 2 Sun.. & Sh.. |
| 13 | 29 | 46 | 29 | 41 | 43 | 34 | | SW.. | 1 S... 3 Sh.& S.. 4 Mn.... |
| 14 | 28 | 98 | 28 | 66 | 43 | 39 | 10 | SE.. | 1 Cld.. 2 Rain.. 4 Mn... |
| 15 | 29 | 34 | 29 | 25 | 40 | 32 | | SW...WNW.. | 1 S.. 2 Sh. & S.. 4 Mn... |
| 16 | 29 | 34 | 29 | 34 | 40 | 30 | | SW.. | 1 S... 4 Sh. of Sn.&Mn... |
| 17 | 29 | 25 | 28 | 96 | 41 | 35 | 03 | SW.. | 1 Sun... 2 Sh. of Rain. |
| 18 | 29 | 05 | 28 | 94 | 43 | 36 | | SW.... | 1 Sun. 2 Sh. of Snow.. |
| 19 | 29 | 64 | 29 | 53 | 44 | 33 | 02 | SW.... | 1 Sun.. 3 Sh. of Rain. |
| 20 | 29 | 70 | 29 | 63 | 42 | 33 | | WNW.ENE.. | 1 S.. |

THE quantity of rain during the month of February, was only 20-100ths of an inch, which is remarkably small, compared with the same month in the year 1813, when it was 3 inches 17-100ths.

## *Observations on Diseases at Richmond.*

Catarrhal Fever has still been the most prevailing complaint in this period. Hooping-Cough has been very general, and in many cases severe. Cases of Asthenia, Cephalalgia, Cynanche tonsillaris, Diarrhœa, Entrodynia, Febris simplex, Gastrodynia, Hæmoptysis, Icterus, Menorrhagia, Obstipatio, Rheumatismus, and Urticaria have been under treatment.

ERRATA in the Thermometer in the LOND. METEOROLO. TABLE of last Month.

February 4 in the 3d Column *for* 53 *read* 43.
..... 10 ..... 2d ..... *for* 14 *read* 24.
..... 11 ..... 2d ..... *for* 35 *read* 30.
..... 15 ..... 3d ..... *for* 32 *read* 39.

# METEOROLOGICAL TABLE FOR LONDON,

*From the 20th of FEBRUARY, to the 19th of MARCH,* 1816,

By Messrs. HARRIS & Co.

*Mathematical Instrument Makers, 50, High Holborn.*

| M. | D. | Therm. | | | Barom. | | Rain Guage | De Luc's Hygrom. Dry. | Damp. | | Winds. | | Atmo. Variation. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 | 40 | 46 | 45 | 30 | $29^{9}$ | The quantity of Rain for the month of February cannot be given on account of the gauge having burst in the fore part of the month. | | 11 | 15 | SW | WSW | Fine | —— | —— |
| | 21 | 40 | 45 | 44 | $29^{9}$ | $30^{1}$ | | | 15 | 10 | W | SW | Fine | —— | —— |
| | 22 | 43 | 47 | 44 | $30^{1}$ | $30^{2}$ | | | 12 | 12 | SW | SSW | Rain | Fine | Clo. |
| | 23 | 41 | 47 | 44 | $30^{2}$ | $30^{5}$ | | | 11 | 8 | SW | S | Clo. | —— | Fine |
| | 24 | 39 | 50 | 47 | $30^{2}$ | $30^{1}$ | | | 8 | 12 | S | SSW | Fine | Clo. | Rain |
| ◐ | 25 | 47 | 50 | 45 | $29^{9}$ | $29^{9}$ | | | 10 | 12 | SW | WNW | Fine | Rain | Clo. |
| | 26 | 35 | 40 | 41 | $29^{8}$ | $29^{6}$ | | | 10 | 12 | WNW | NW | Rain | Clo. | Rain |
| | 27 | 39 | 47 | 40 | 30 | $30^{1}$ | | | 8 | 5 | W | NW | Fine | —— | Clo. |
| | 28 | 35 | 40 | 32 | $39^{2}$ | $30^{2}$ | | | 4 | 5 | W va | WNW | Clo. | Fine | Clo. |
| | 29 | 21 | 35 | 32 | $29^{9}$ | $29^{9}$ | | | 6 | 6 | W | W | Fine | —— | —— |
| ● | 1 | 40 | 39 | 32 | $29^{9}$ | $29^{8}$ | | | 9 | 6 | W | S | Clo. | —— | Fine |
| | 2 | 32 | 41 | 40 | $29^{6}$ | $29^{2}$ | | | 11 | 12 | S | SSW | Clo. | Rain | Clo. |
| | 3 | 37 | 40 | 38 | $29^{3}$ | $29^{1}$ | | | 10 | 10 | NE | SW | Clo. | —— | —— |
| | 4 | 34 | 40 | 35 | $29^{3}$ | $29^{2}$ | | | 10 | 10 | SW | SW | Clo. | —— | —— |
| | 5 | 34 | 43 | 40 | $29^{2}$ | $29^{1}$ | | | 6 | 9 | SW | E | Fine | —— | Clo. |
| | 6 | 38 | 41 | 38 | 29 | 29 | | | 9 | 11 | SW | SSW | Fine | Rain | Clo. |
| | 7 | 37 | 40 | 40 | $29^{1}$ | $29^{2}$ | | | 10 | 12 | SW | SW | Fine | Rain | Clo. |
| | 8 | 37 | 39 | 37 | $29^{1}$ | $29^{1}$ | | | 11 | 12 | S | NE | Fine | Rain | Clo. |
| ◑ | 9 | 35 | 38 | 35 | $29^{3}$ | $29^{5}$ | | | 11 | 10 | NE | N | Clo. | —— | Fine |
| | 10 | 32 | 40 | 32 | $29^{7}$ | $29^{8}$ | | | 9 | 6 | NNE | W | Fine | —— | —— |
| | 11 | 31 | 47 | 47 | $29^{9}$ | $29^{7}$ | | | 9 | 11 | SSW | SW | Clo. | Rain | Clo. |
| | 12 | 41 | 48 | 50 | $29^{7}$ | $29^{6}$ | | | 13 | 16 | WSW | WSW | Rain | —— | Clo. |
| | 13 | 44 | 50 | 45 | $29^{6}$ | $29^{5}$ | | | 16 | 12 | WSW | WSW | Clo. | Rain | Fine |
| | 14 | 43 | 52 | 49 | $29^{9}$ | $29^{5}$ | | | 14 | 14 | SW | SSW | Rain | —— | Fine |
| | 15 | 46 | 50 | 40 | $29^{4}$ | $29^{3}$ | | | 11 | 9 | SW | SW | Fine | Rain | Fine |
| ○ | 16 | 35 | 45 | 43 | $29^{8}$ | $29^{7}$ | | | 8 | 7 | SW | SSW | Clo. | Fine | Clo. |
| | 17 | 24 | 44 | 40 | $29^{9}$ | $29^{6}$ | | | 7 | 10 | WNW | WNW | Fine | —— | Clo. |
| | 18 | 37 | 47 | 40 | $29^{6}$ | $29^{6}$ | | | 9 | 6 | SSW | WSW | Clo. | Fine | —— |
| | 19 | 38 | 45 | 42 | $29^{6}$ | $29^{8}$ | | | 5 | 5 | W va | NNW | Fine | —— | —— |

## BILL OF MORTALITY *from February 20, to March 19,* 1816.

| | | Feb. 27. | Mar. 5. | Mar. 12. | Mar. 19. | |
|---|---|---|---|---|---|---|
| CHRISTENED. | Males | 187 | 247 | 210 | 199 | |
| | Females | 177 | 223 | 181 | 181 | |
| | | 364 | 470 | 391 | 380 | Total, 1605. |
| BURIED | Males | 199 | 298 | 224 | 198 | |
| | Females | 204 | 306 | 232 | 224 | |
| | | 403 | 604 | 456 | 422 | Total, 1887. |
| OF WHOM HAVE DIED | Under 2 Years | 98 | 152 | 112 | 105 | |
| | Betw. 2 and 5 | 41 | 54 | 33 | 34 | |
| | 5 and 10 | 13 | 26 | 21 | 15 | |
| | 10 and 20 | 11 | 17 | 15 | 14 | |
| | 20 and 30 | 28 | 40 | 36 | 29 | |
| | 30 and 40 | 35 | 55 | 52 | 44 | |
| | 40 and 50 | 49 | 54 | 49 | 41 | |
| | 50 and 60 | 46 | 64 | 49 | 40 | |
| | 60 and 70 | 40 | 59 | 41 | 44 | |
| | 70 and 80 | 28 | 45 | 28 | 34 | |
| | 80 and 90 | | 35 | 17 | 17 | |
| | 90 and 100 | 2 | 3 | 3 | 6 | |
| SMALL POX | | 14 | 14 | 7 | 8 | Total 43. |

# A REGISTER OF DISEASES

*Between FEBRUARY 20th, and MARCH 19th, 1816.*

| DISEASES. | Total. | Fatal. | DISEASES. | Total. | Fatal. |
|---|---|---|---|---|---|
| Abortio | 19 | | Entrodynia | 18 | |
| Abscessio | 19 | | Epilepsia | 8 | |
| Acne | 2 | | Epistaxis | 9 | |
| Amaurosis | 2 | | Erysipelas | 25 | 1 |
| Amenorrhœa | 23 | | Erythema *læve* | 2 | |
| Anasarca | 26 | | —— *papulatum* | 3 | |
| Aneurisma | 1 | | Febris *intermittent* | 35 | |
| Anorexia | 2 | | —— *catarrhalis* | 71 | |
| Aphtha *lactentium* | 7 | | —— *Synocha* | 26 | |
| —— *anginosa* | 2 | | —— *Typhus mitior* | 9 | |
| Apoplexia | 7 | 4 | —— *Typhus gravior* | 2 | 2 |
| Ascites | 10 | 2 | —— *Synochus* | 36 | 3 |
| Asthenia | 17 | | —— *Puerpera* | 4 | |
| Asthma | 79 | 13 | —— *remit. Infant* | 25 | |
| Atrophia | 7 | 2 | Fistula | 1 | |
| Bronchitis *acuta* | 25 | 3 | Furunculus | 10 | |
| —— *chronica* | 12 | 1 | Gastritis | 2 | |
| Bronchocele | 1 | | Gastrodynia | 20 | |
| Calculus | 1 | | Gonorrhœa | 37 | |
| Cancer | 8 | | Hæmatemesis | 2 | |
| Carbunculus | 3 | | Hæmaturia | 3 | |
| Cardialgia | 17 | | Hæmoptöe | 14 | 1 |
| Carditis | 3 | | Hæmorrhois | 24 | |
| Catarrhus | 165 | | Hemiplegia | 3 | |
| Cephalalgia | 36 | | Hepatalgia | 4 | |
| Cephalæa | 6 | | Hepatitis | 26 | 2 |
| Chlorosis | 10 | | Hernia | 18 | 1 |
| Chorea | 3 | | Herpes *Zoster* | 4 | |
| Cholera | 9 | 1 | —— *circinatus* | 2 | |
| Colica | 16 | | —— *labialis* | 4 | |
| —— *Pictonum* | 4 | | —— *præputialis* | 1 | |
| Convulsio | 22 | 3 | Hydrargyria | 2 | |
| Cystitis | 1 | | Hydrarthyrus | 1 | |
| Cynanche *Tonsillaris* | 61 | | Hydrocele | 3 | |
| —— *maligna* | 3 | | Hydrocephalus | 12 | 7 |
| —— *Trachealis* | 2 | | Hydrothorax | 6 | 2 |
| —— *Parotidea* | 10 | | Hypochondriasis | 13 | |
| —— *Pharyngea* | 8 | | Hysteralgia | 2 | |
| —— *Laryngea* | 4 | | Hysteria | 21 | |
| Diabetes | 2 | | Hysteritis | 3 | |
| Diarrhœa | 67 | 1 | Icterus | 13 | 1 |
| Dysenteria | 16 | 2 | Ileus | 2 | |
| Dyspepsia | 105 | | Impetigo *figurata* | 2 | |
| Dyspnœa | 17 | | —— *erysipelatodes* | 4 | |
| Dysphagia | 2 | | —— *scabida* | 5 | |
| Dysuria | 12 | | Ischias | 1 | |
| Ecthyma | 5 | | Ischuria | 5 | |
| Eczema | 3 | | Lepra | 3 | |
| Eneuris | 8 | | Leucorrhœa | 33 | |
| Enteritis | 1 | | Lichen *simplex* | 4 | |

| DISEASES. | Total. | Fatal. | DISEASES. | Total. | Fatal. |
|---|---|---|---|---|---|
| Lithiasis | 2 | | Porrigo *favosa* | 4 | |
| Mania | 6 | 1 | Profusio | 1 | |
| Melancholia | 7 | | Prolapsus | 10 | |
| Menorrhagia | 30 | | Prurigo *mitis* | 1 | |
| Miliaria | 8 | 1 | ——— *senilis* | 5 | |
| Morbi *Infantiles** | 139 | 3 | Psoriasis *guttata* | 10 | |
| ——— *Biliosi** | 97 | 1 | ——— *inveterata* | 4 | |
| Nephralgia | 3 | | Pyrosis | 11 | |
| Nephritis | 8 | | Rheumatismus *acutus* | 76 | |
| Neuralgia | 1 | | ——— *chronicus* | 70 | |
| Obstipatio | 18 | | Roseola | 4 | |
| Odontalgia | 25 | | Rubeola | 57 | 1 |
| Ophthalmia | 41 | | Scabies | 58 | |
| Otalgia | 6 | | Scarlatina *simplex* | 16 | |
| Palpitatio | 4 | | ——— *anginosa* | 15 | |
| Paracusis | 2 | | ——— *maligna* | 1 | 1 |
| Paralysis | 21 | | Scirrhus | 2 | |
| Paronychia | 6 | | Scorbutus | 4 | |
| Pemphigus | 1 | | Scrofula | 25 | |
| Peripneumonia | 31 | | Spasmi | 11 | 1 |
| Peritonitis | 2 | | Strictura | 11 | |
| Pernio | 24 | | Strophulus *intertinctus* | 3 | |
| Pertussis | 48 | 3 | Syphilis | 46 | |
| Phlegmasia *dolens* | 1 | | Tabes Mesenterica | 12 | 2 |
| Phlogosis | 17 | | Tic Doloreux | 1 | |
| Phrenitis | 1 | 1 | Vaccinia | 62 | |
| Phthisis *Pulmonalis* | 33 | 17 | Varicella | 20 | |
| Physconia | 1 | | Variola | 32 | 6 |
| Pityriasis | 1 | | Vermes | 22 | |
| Plethora | 4 | | Vertigo | 20 | |
| Pleuritis | 30 | | Urticaria *febrilis* | 6 | |
| Pleurodyne | 3 | | ——— *evanida* | 1 | |
| Pneumonia | 53 | 7 | ——— *tuberosa* | 2 | |
| Podagra | 20 | | | | |
| Porrigo *larvalis* | 3 | | Total of Cases | 2799 | |
| ——— *decalvans* | 5 | | | | |
| ——— *scutulata* | 2 | | Total of Deaths | | 97 |

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct heads; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

*Observations on Prevailing Diseases.*

The difference of mortality in the weeks of this period is singularly great. In the second week, the number increased one half of that which the Bill of the first contains. Although the deaths are at almost every age augmented, yet children under ten years of age have suffered the most. There are no deaths from 80 to 90 recorded in the Bill of Mortality from February the 20th to the 27th. This most probably is an error; because in the Bill of the succeding week, the number at that age is double the usual number: a circumstance not reconcileable with any known physical causes.

The same atmospheric variations have characterized the present, as have marked all the months of the past winter: but as the degree of cold has not been so intense, the usual affections of the respiratory organs, consequent on sudden changes of weather, though frequent, have not been generally of so serious a nature; with the exception of *Bronchitis*. Inflammation of the *bronchiæ* has not only been more common than usual, but has

been attended with a great degree of *pyrexia*, and has required very active depletion and a rigid adherence to the antiphlogistic plan. We rejoice to see, by the registers of the Reporters, that this disease, so well defined by Dr. Badham, and with the history and treatment of which we were so little acquainted before the publication of his remarks, is now more generally noted and better understood by medical practitioners.

*Cynanche laryngea* is another formidable disease, which, until lately, had been little noticed. The fatality usually attending it, and the eminence of several individuals who have fallen sacrifices to it, notwithstanding the best medical aid, attaches a high degree of interest to this disorder, and induces us to direct the attention of the Faculty more immediately to it. All the cases of it in the Register of the *Repository* of the last and present month are reported successful. Does this happy result arise from the complaint being detected and judiciously treated *ab initio?* One of these cases is stated to have been preceded by a catarrh, which terminated in inflammation of the *larynx* that continued for five weeks. Bleeding, blistering, and antiphlogistic remedies were had recourse to with mercurial alteratives; under which course the patient quite recovered. It is highly expedient for elucidating the history and treatment of this disease, that practitioners should publish their observations whenever it occurs.

The fatal case of *Erysipelas* was that of a man aged 50, who had previously laboured under dyspepsia and vertigo for several months.

*Intermittents*, as may be expected in the vernal season, are become more common.

*Rubeola* and *Variola* are very rife in some districts of the town; particularly in St. George's Parish, (West,) among the lower orders of people. There is nothing particular attending the former disease; but the latter is of the confluent kind, and has been very fatal. Unfortunately the prejudice still existing among this class against Vaccination, and the fear of exposure when their children are taken ill of small pox, combine to produce effects that perpetuate the fomes of contagion.

*Varicella* also prevails in the same district.

Of *Scarlatina anginosa*, there is more than the ordinary proportion of cases. It is not confined to any part of the town, nor do we find it to be peculiarly fatal.

A case of *Urticaria febrilis* occurred from eating of mussels; but with no unusual symptoms or effects.

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*Monthly Prices of* SUBSTANCES *employed in* PHARMACY.

| | | S. | D. |
|---|---|---|---|
| Acaciæ Gummi elect. | lb. | 4 | 0 |
| Acidum Citricum | | 32 | 0 |
| —— Benzoicum | unc. | 6 | 6 |
| —— Sulphuricum | P. lb. | 0 | 9 |
| —— Muriaticum | | 2 | 0 |
| —— Nitricum | | 4 | 0 |
| —— Aceticum | cong. | 5 | 0 |
| Alcohol | M. lb. | 5 | 0 |
| Æther sulphuricus | | 10 | 6 |
| —— rectificatus | | 12 | 0 |
| Æ[illegible] | lb. | 7 | 6 |
| Al[illegible]ræ extractum | | 7 | 6 |
| [illegible]aris extractum | | 5 | 0 |
| Alth[illegible] Radix | | 1 | 6 |
| Alumen | | 0 | 6 |
| Ammoniæ Murias | | 2 | 6 |
| —— Subcarbonas | | 4 | 0 |
| Amygdalæ dulces | | 4 | 6 |
| Ammoniacum (Gutt.) | | 10 | 6 |
| —— (Lump.) | | 5 | 0 |
| Anthemidis Flores | | 2 | 3 |
| Antimonii oxydum | | 7 | 0 |
| —— sulphuretum | | 1 | 3 |
| Antimonium Tartarisatum | | 7 | 0 |
| Arsenici Oxydum | | 1 | 6 |
| Assafœtidæ Gummi-resina | lb. | 5 | 6 |
| Aurantii Cortex | | 3 | 9 |
| Argenti Nitras | unc. | 7 | 0 |

| | | S. | D. |
|---|---|---|---|
| Balsamum Peruvianum | lb. | 30 | 0 |
| —— Tolutanum | | 20 | 0 |
| Benzoinum elect. | | 12 | 0 |
| Calamina præparata | | 0 | 6 |
| Calumbæ Radix | | 3 | 0 |
| Cambogia | | 9 | 0 |
| Camphora | | 8 | 0 |
| Canellæ Cortex | | 6 | 6 |
| Cardamomi Semina opt. | lb. | 9 | 0 |
| Cascarillæ Cortex | | 4 | 0 |
| Castoreum | unc. | 5 | 0 |
| Catechu Extractum | lb. | 3 | 6 |
| Cetaceum | | 3 | 6 |
| Cera alba | | 3 | 6 |
| —— flava | | 3 | 6 |
| Cinchonæ cordifoliæ Cortex (yellow) | | 6 | 6 |
| —— lanceifoliæ Cortex (quilled) | | 10 | 6 |
| —— oblongifoliæ Cortex (red) | | 16 | 0 |
| Cinnamomi Cortex | | 20 | 0 |
| Coccus (Cocinella) | unc. | 3 | 6 |
| Colocynthidis Pulpa | lb. | 36 | 0 |
| Copaiba | | 6 | 0 |
| Colchici Radix | | 3 | 6 |
| Croci stigmata | unc. | 6 | 6 |
| Cupri sulphas | lb. | 1 | 2 |
| Cuprum ammoniatum | | 14 | 0 |
| Cuspariæ Cortex | | 4 | 0 |
| Confectio aromatica | | 9 | 0 |

| | | S. | D. |
|---|---|---|---|
| Confectio Aurantiorum | | 3 | 6 |
| —— Opii | | 6 | 0 |
| —— Rosæ caninæ | | 2 | 0 |
| —— Rosæ gallicæ | | 2 | 3 |
| —— Sennæ | | 1 | 8 |
| Emplastrum Lyttæ | | 7 | 6 |
| —— Hydrargyri | | 3 | 6 |
| Extractum Belladonnæ | unc. | 1 | 6 |
| —— Cinchonæ | | 2 | 6 |
| —— Cinchonæ resinosum | | 5 | 0 |
| —— Colocynthidis | | 4 | 0 |
| —— Colocynthidis comp. | | 2 | 0 |
| —— Conii | | 0 | 9 |
| —— Elaterii | | 24 | 0 |
| —— Gentianæ | | 0 | 6 |
| —— Glycyrrhizæ | lb. | 5 | 0 |
| —— Hæmatoxyli | unc. | 0 | 9 |
| —— Humuli | | 0 | 9 |
| —— Hyoscami | unc. | 1 | 6 |
| —— Jalapæ | 2s. 0d. Res. | 3 | 6 |
| —— Opii | | 3 | 6 |
| —— Papaveris | | 1 | 6 |
| —— Rhæi | | 3 | 0 |
| —— Sarsaparillæ | | 1 | 6 |
| —— Taraxaci | | 0 | 9 |
| Ferri subcarbonas | lb. | 1 | 4 |
| — sulphas | | 1 | 6 |
| Ferrum ammoniatum | | 5 | 6 |
| —— tartarizatum | | 5 | 6 |
| Galbani Gummi-resina. | | 12 | 0 |
| Gentianæ Radix elect | | 1 | 6 |
| Guaiaci resina | | 7 | 0 |
| Hydrargyrum purificatum | | 5 | 6 |
| —— præcipitatum album | | 9 | 0 |
| —— cum creta | | 6 | 6 |
| Hydrargyri Oxymurias | unc. | 0 | 9 |
| —— Submurias | | 0 | 9 |
| —— Nitrico-Oxydum | | 0 | 9 |
| —— Oxydum Cinereum | | 1 | 6 |
| —— Oxydum rubrum | | 6 | 0 |
| —— Sulphuretum nigrum | | 0 | 4 |
| —— —— rubrum | | 0 | 9 |
| Hellebori nigri Radix | lb. | 2 | 6 |
| Ipecacuanhæ Radix | | 18 | 0 |
| —— Pulvis | | 20 | 0 |
| Jalapæ Radix | | 6 | 0 |
| —— Pulvis | | 7 | 0 |
| Kino | | 10 | 6 |
| Liquor Plumbi subacetatis | M. lb. | 1 | 8 |
| — Ammoniæ | | 3 | 6 |
| — Potassæ | | 1 | 6 |
| Linimentum Camphoræ comp. | | 6 | 6 |
| —— saponis comp. | | 4 | 6 |
| Lichen | lb. | 1 | 4 |
| Lyttæ | | 14 | 0 |
| Magnesia | | 10 | 6 |
| Magnesiæ Carbonas | | 4 | 0 |
| —— Sulphas, opt. | | 1 | 2 |
| Manna optima | | 7 | 6 |
| — communis | | 5 | 6 |
| Moschus pod, (30s.) | in gr. unc. | 40 | 0 |
| Mastiche | lb. | 7 | 0 |
| Myristicæ Nuclei | | 20 | 0 |
| Myrrha elect. | | 9 | 0 |
| Olibanum | | 4 | 6 |
| Opoponacis gummi resina | | 30 | 0 |
| Opium (Turkey) | | 40 | 0 |
| Opium (East India) | | 41 | 0 |
| Oleum Ætheream | oz. | 2 | 0 |
| — Amygdalarum | lb. | 4 | 8 |
| — Anisi | unc. | 3 | 0 |
| — Anthemidis | | 6 | 6 |
| — Cassiæ | | 9 | 0 |
| — Caryophilli | | 6 | 6 |
| — Cajuputi | | 7 | 0 |
| — Carui | | 1 | 6 |
| — Juniperi Ang. | | 5 | 0 |
| — Lavandulæ | | 4 | 6 |
| — Lini | cong. | 6 | 6 |
| — Menthæ piperitæ | unc. | 4 | 0 |
| — Menthæ viridis Ang. | | 4 | 6 |

| | | S. | D. |
|---|---|---|---|
| Oleum Pimentæ | unc. | 6 | 0 |
| — Ricini optim. | (per bottle) | 12 | 0 |
| — Rosmarini | unc. | 1 | 0 |
| — Succini | 2s. 6d. —— rect. | 5 | 0 |
| — Sulphuratum | P. lb. | 1 | 6 |
| — Terebinthinæ | | 1 | 4 |
| — — rectificatum | | 2 | 6 |
| Olivæ Oleum | cong. | 20 | 0 |
| — Oleum secundum | | 12 | 0 |
| Papaveris Capsulæ | (per 100) | 3 | 6 |
| Plumbi subcarbonas | lb. | 0 | 8 |
| — Superacetas | | 2 | 6 |
| — Oxydum semi-vitreum | | 0 | 9 |
| Potassæ Fusa | unc. | 1 | 4 |
| — cum Calce | | 0 | 6 |
| Potassæ Nitras | lb. | 1 | 6 |
| — Acetas | | 10 | 0 |
| — Carbonas | | 4 | 6 |
| — Supercarbonas | | 1 | 8 |
| — Sulphas | | 1 | 6 |
| — Sulphuretum | | 2 | 6 |
| — Supersulphas | | 0 | 9 |
| — Tartras | | 3 | 6 |
| — Supertartras | | 1 | 10 |
| Pilulæ Hydrargyri | unc. | 0 | 9 |
| Pulvis Antimonialis | | 0 | 9 |
| — Contrayervæ comp. | | 0 | 6 |
| — Tragacanthæ comp. | | 0 | 6 |
| Resina Flava | lb. | 0 | 5 |
| Rhæi Radix (Russia) | | 42 | 0 |
| —— (East India) opt. | | 16 | 0 |
| Rosæ petala | | 14 | 0 |
| Sapo (Spanish) | | 3 | 0 |
| Sarsaparillæ Radix | | 8 | 0 |
| Scammoneæ Gummi-Resina | unc. | 3 | 6 |
| Scillæ Radix siccat. opt. | lb. | 4 | 6 |
| Senegæ Radix | | 4 | 0 |
| Sennæ Folia | | 0 | 6 |
| Serpentariæ Radix | | 8 | 0 |
| Simaroubæ Cortex | | 6 | 0 |
| Sodæ subboras | | 4 | 0 |
| — Sulphas | | 0 | 8 |
| — Carbonas | | 6 | 6 |
| — Subcarbonas | | 2 | 0 |
| — — exsiccata | | 5 | 0 |
| Soda tartarizata | | 2 | 6 |
| Spongia usta | | 24 | 0 |
| Spiritus Ammoniæ | M. lb. | 5 | 0 |
| — —— aromaticus | | 5 | 0 |
| — —— fœtidus | | 5 | 0 |
| — —— succinatus | | 5 | 6 |
| — Cinnamomi | | 3 | 0 |
| — Lavendulæ | | 5 | 0 |
| — Myristicæ | | 8 | 6 |
| — Piperitæ | | 3 | 6 |
| — Rosmarini | | 5 | 0 |
| — Ætheris Aromaticus | | 7 | 6 |
| — — Nitrici | | 5 | 0 |
| — — Sulphurici | | 7 | 0 |
| — — Compositus | | 7 | 6 |
| — Vini rectificatus | cong. | 27 | 0 |
| Syrupus Papaveris | lb. | 2 | 0 |
| Sulphur | | 0 | 9 |
| — Sublimatum | | 1 | 0 |
| — Lotum | | 1 | 2 |
| — Præcipitatum | | 1 | 4 |
| Tamarindi Pulpa opt. | | 2 | 0 |
| Terebinthina Vulgaris | | 0 | 10 |
| —— Canadensis | | 8 | 6 |
| —— Chia | | 14 | 0 |
| Tinct. Ferri muriatis | | 5 | 6 |
| Tragacantha Gummi, elect. | | 8 | 0 |
| Valerianæ Radix | | 1 | 8 |
| Veratri Radix | | 2 | 6 |
| Unguentum Hydrargyri fortius | | 5 | 6 |
| —— —— Nitratis | | 2 | 8 |
| —— —— Nitrico-oxydi | | 3 | 0 |
| Uvæ Ursi Folia | | 3 | 6 |
| Zinci Oxydum | | 7 | 0 |
| — Sulphas purif. | | 3 | 0 |
| Zingiberis Radix opt. | | 4 | 0 |

Prices of New Phials per Gross.——8 oz. 70s.—6 oz. 58s.—4 oz. 47s.—3 oz. 43s.—2 oz. and 1½ oz. 36s.—1 oz. 30s.—half oz. 24s.——The London Glassmen allow 10 per Cent, ready money.——The Manufacturers in the Country, where all Phials are made, allow 27½ discount, at three months credit, (carriage free,) to London.

Prices of second hand Phials cleaned, and sorted.——8 oz. 46s.—6 oz. 44s.—4 oz. 33s. 3oz. 30s.—2 oz. and all below this size, 25s.—Three months credit.

NOTICE OF LECTURE.

Dr. Squire will, on Tuesday, April 2d, commence a Course of Lectures on the Principles and Practice of Midwifery, including the Diseases of Women and Children. Particulars may be known at Dr. Squire's, Ely Place.

LITERARY NOTICE.

Professor Himly, of Gottingen, is about to resume the publication of his Journal, on the Senses (particularly those of Hearing and Vision), which the state of the continent had suspended for some years.

## MONTHLY CATALOGUE OF BOOKS.

Rudiments of the Anatomy and Physiology of the Human Body. By T. J. Armiger. 8vo. Cox and Son.

Lectures on Craniological Physiognomy, in which the Opinions of Drs. Gall and Spurzheim are controverted. Delivered before the City Philosophical Society. By a Member. 8vo. Wilson.

Remarks on the Editio Altera of the Pharmacopœia Londinensis, and on Dr. Powell's Translation and Annotations. By R. Phillips. 8vo. Phillips.

Transactions of the Geological Society. Vol. II. 4to. Phillips.

An Elementary Introduction to the Knowledge of Mineralogy, &c. designed for the use of the Student. By W. Phillips, Member of the Geological Society. 12mo. Phillips.

A Descriptive Catalogue of the British Specimens deposited in the Geological Collection of the Roy. Instit. 1816. Longman & Co.

A Narrative of a Journey to London in 1814; or, A Parallel of the English and French Surgery: preceded by some Observations on the London Hospitals. By P. J. Roux. Cox and Son.

Observations, with Cases illustrative of a new, simple, and expeditious Mode of curing Rheumatism and Sprains. By William Balfour, M. D. Underwood.

Notes on the West Indies, including Remarks on the Seasoning or Yellow Fever of Hot Climates, &c. By George Pinkard, M. D. 2 Vols. 8vo. A new Edition.

An Experimental Inquiry into the Nature, Cause, and Varieties of the Arterial Pulse. By C. H. Parry, M. D. F.R.S. 8vo. Underwood.

Instructions to Parents on the Management of their Children. By John Way, Surgeon. 12mo. Callow.

Health, a poem: shewing how to procure, preserve, and restore it. To which is annexed, the Doctor's Decade. By E. Barnard, M.D.

An Essay on the Bots of Horses and other Animals. By Bracy Clark, F.L.S. Veterinary Surgeon. 4to. Callow.

## NOTICES TO CORRESPONDENTS.

*Communications are received from* Mr. Gaitskell, Mr. Harrold, Mr. Kerrison, Mr. Bidwell, Mr. Green, Mr. Millar, Mr. Mabey, &c.

*If our* Chester *Correspondent will favour us with his address, we shall take pleasure in giving him every satisfaction in our power, in answer to his queries; but we must beg leave to decline, except on public grounds, introducing the subject again in the* REPOSITORY.

THE

LONDON MEDICAL

REPOSITORY.

No. 29. MAY 1, 1816. VOL. V.

## PART I.

## ORIGINAL COMMUNICATIONS.

### I.

*Case of Gunshot Fracture of the Neck and Head of the Humerus, in which the Splinters, including about two inches of that Bone, and fully one-third of its head, were removed, and the Arm preserved.* By ——— RAMSAY, Assistant-Surgeon 1st Ceylon Regiment.

MATTHEW OSDALE, aged 26, a Corporal of the Royal Newfoundland Fencibles, serving as a marine on board the flotilla on Lake Erie, under the command of Captain Barclay, in the action with the American Squadron on the 10th September 1813, received a wound by a grape-shot on the upper part of the right arm, close to the shoulder. The ball entered in front, below the coracoid process of the scapula, shattered the humerus to pieces in its course, and came out on the back part of the arm, at the outer edge of the deltoid muscle. One large splinter extended into the joint.

This man was at first under the care of Mr. Young, one of the surgeons of the Royal Navy, who, from the extent of the injury, concluded that the operation of amputation at the shoulder-joint was unavoidable; and accordingly, as soon as he considered him in a fit state to submit to this operation, Mr. Richardson and myself were called on to assist in the performance of it. Preparation had been made, and the patient placed on the table; when I was requested to see that every thing was in order, and to undress the arm.

Having seen the wound a few days after the action, when it was in a high state of inflammation, and heard the description of its progress and present condition by Mr. Young, it did not occur to me to doubt of the necessity of the operation, until I removed

the dressings; when it presented a much more favourable appearance than I had been led to expect. The inflammatory symptoms had subsided; the granulations around the edges were clean and healthy; and the discharge, although streaked with a thin brownish matter, proceeding from exfoliating bones, yet, was of a tolerably good quality. One large piece of bone lay loose, projecting from the opening in front, which I easily removed with the forceps.

Taking this state of the parts, therefore, into consideration, and that this was the right arm of a young man of a sound constitution, I thought myself justified in giving it as my opinion, that immediate amputation was unnecessary, as I conceived it a very proper case for a trial to save the limb. This opinion was accorded to by Mr. Young; but with a presentiment, that it tended only to put off the day of operation to greater distance. In the mean time, Mr. Young being permitted to accompany Captain Barclay, who had been severely wounded, to Lower Canada, and Mr. Richardson from ill-health being obliged to return home, the case, with those of all our wounded prisoners, was left under my care; and with them I was sent into the United States, and placed in an hospital at Presquil.

I had now an opportunity of attending to this case more particularly; and on examination found, that several pieces of bone, which had been driven to the posterior part of the wound, lay embedded among the muscles, producing much irritation and inflammation; with pain stretching down to the fingers: and that several splinters adhered to the ends of the fractured bone, producing an unhealthy discharge, besides the large piece which extended into the joint itself.

In order to make room for the removal of the first portion of these, I made a large and deep incision, from the lower end of the opening at the back part of the arm; by which, although with considerable difficulty, in cutting and tearing them out, I was enabled to take them away. Previously to this, however, the suppuration had been excessive, and hectic symptoms had made their appearance, attended with a diarrhœa, which created some alarm. In a few days, however, after the removal of these causes of irritation, the discharge was greatly reduced, and the hectic yielded kindly to a light generous diet and a moderate allowance of wine. The diarrhœa submitted to small doses of rhubarb, alternated with calumba.

To facilitate the extraction of the adhering splinters, this incision was for some time kept open, and the opening in front was likewise enlarged, by which I was allowed to deal freely with them; and, in a short time, partly by exfoliation, but principally by the use of the forceps, they were removed—thirteen pieces having been taken away in the course of five weeks.

There still remained, however, the large splinter, extending into the joint, which was producing much irritation, and a profuse gleety discharge from the socket, thereby retarding the general healthy action of the whole; the result of the removal of which gave me considerable concern, particularly as the cutting into the joint, for the purpose of extracting splinters of the head of the bone, was to me a new operation. There was, however, no alternative in order to save the limb; and, as the operation was not a dangerous one, I had no difficulty in bringing my mind to perform it; particularly as, if the result should be unfavourable, I had still before me the last grand resource, an amputation, or an excision.

Having thus resolved on the operation, I made an incision with a scalpel, beginning at the upper edge of the wound in front, and carried it upwards in the direction of the fibres of the deltoid, as far into the joint as I could, by which the capsular ligament was slit up, and the head of the bone exposed, over which the fissure of the fracture was seen to run. Having deepened the incision, cleared the piece from its adhesions, and enlarged the opening in the capsule, to the extent I thought necessary for allowing it to come out; I then introduced a pair of strong forceps at the under part of the fissure, and bringing them upwards as a wedge, with a slight degree of violence being used, a separation was effected, and the piece, including fully one-third of the head of the humerus, extracted. During the incision a small vessel bled freely, which was tied: and as I expected no more exfoliation, I closed the wound with straps of adhesive plaster, applied splints and a bandage, and placed the arm on a resting pad in a proper position.

During the first two days the inflammation ran high, and the fever was considerable, requiring medicine and other antiphlogistic means. On the evening of the third day, the pain and tension of the part was so great as to induce me to remove the splints and open the dressings; when I found that the lips of the incision had receded, and were much swollen and tumid; the discharge was dark and bloody, and in great quantity; and the bottom of the wound, even after this was cleared away, appeared very foul and unpromising. I laid a pledget of simple dressing on it, and over this a large poultice.

Next morning the pain and tension had abated; he had slept well during the night, and the fever was less; but there was no improvement in the discharge. I dressed from the bottom with bits of lint soaked in a weak solution of sulphate of zinc mixed with camphor; and a saline draught was ordered for the day.

On the morning of the fifth day, all the inflammatory symptoms had ceased, and the fever had subsided; but the matter,

and appearance of the bottom of the wound were still of an unfavourable nature. It was dressed with lint soaked in a warm digestive ointment; and I put him on a course of bark, with a more generous diet. Under this treatment, in the course of a week, the discharge was very much improved, and granulations of a healthy appearance began to shoot out from the bottom.

The removal of the splinters had left a vacancy of about two inches between the fractured ends of the bone, besides that occasioned by the extraction of the part of the head, which was to be replaced by callus; an object, now, anxiously to be wished for. In order, therefore, to assist Nature in this process, splints were applied to preserve the arm in a proper position, and compresses were used to prevent sinuses from forming, whilst the constitution of the patient was kept up by a good diet and an allowance of toddy. The bark was continued.

The chief difficulty now arose from the frequent necessity of removing the splints; and it required very particular attention to guard against the insinuation of matter downward among the muscles. The patient's health, however, continuing good, and rather improving, the cure went on well, and indeed much better than I had reason to expect. In seven weeks after the extraction of all the splinters (three months from the time he came under my care), the re-formation of bone was completed; and I had the satisfaction of removing the splints, and seeing my patient use his arm; with which he was very proud to carry the dressing board, hand me a basin, or assist those who could not help themselves.

In order to obtain as much motion of the joint as possible, I induced him to use it frequently and freely; and this he had effected to a considerable extent before he left the hospital at Presquil: but, in removing from thence to Pittsburgh, he had the misfortune to be overturned from a sledge in going down a steep hill, by which this joint was wrenched. Inflammation succeeded, the wound again opened, and two or three small pieces of bone came away. Since that period the joint has been anchylosed; but the motion from the range of the scapula is still so great as to allow him to put off and on his clothes, use his knife and fork, tie his handkerchief, and perform many other operations of comfort and convenience, which, had the arm been amputated, he must have been deprived of for ever.

I was well aware of the risk I had incurred in taking upon myself the responsibility of this case; particularly as it went so directly in the face of a generally accepted rule in surgery. In the short time I had been in the service, however, I had imagined I had seen several instances of limbs lopped off unthinkingly; and I laid it down as an axiom, that in all kinds of doubtful cases I should make this the last resource.

In another case, on the same occasion as the above, William Cooper, gunner's mate, was struck by a cannot-shot, on the upper part of the arm, which broke the humerus, and lacerated the muscles from the centre of the deltoid half-way down the arm: this was likewise, at a consultation, given up to amputation. I had the satisfaction of curing this arm completely: and of saving an able-bodied young man, and one of the best seamen on board the fleet, to the service. This man, during the latter part of our stay in the United States, was chopper of the wood to the Hospital, and is now, I believe, on service on the Lakes.

It would appear presumption in me to lay down rules for distinguishing such cases wherein an attempt to save limbs is warrantable; rules for this purpose having already been laid down by more experienced and able surgeons: but I must confess that it has frequently occurred to me, that surgical laws, although made with great discrimination, and often absolutely necessary, are sometimes not only nugatory, but embarrassing: preventing much the progress of the science by deterring young surgeons from the exercise of their judgment. In cases of gunshot wounds, particularly, there are so many objects to be taken into account, as, situation, circumstances, constitution, and other indefinable and anomalous characteristics, that any general rule can scarcely be expected to embrace the whole: and after the guarded and learned delineations which the student receives from lectures or from authors, when he comes into the field he looks to his past labours for assistance, but often finds his retraces useless and vain. He sees something now, which he never saw nor heard described before; and he finds that he is left solely to his own judgment and discrimination. It is well for him, and those under his care, if he has studied attentively the true principles of his profession, in exercising that judgment which must be now called into action. No one ever felt more the force of these observations than I did on the present occasion. Almost at my entrance into the service—left with the charge of above one hundred men, very severely wounded, insulated almost from advice, and with very spare means of being useful, my resources were confined in a great measure to myself: and it is with not a little pride that I am enabled to say, that even in this awkward situation, my endeavours were crowned with success; not a life having been lost of all those who were wounded on that occasion.

It has been stated to me, that the cure of Osdale's case was performed after the manner of M. *Larrey*, the surgeon in chief of the French army. It may be M. Larrey's mode; but when I made the attempt to save that limb, I had not heard that he, or any other surgeon, had performed a similar operation. It

has also been suggested, that excision of the head of the bone would have been a more certain method of cure in this case; but I need only mention, that the one is a simple, and the other, comparatively speaking, a formidable operation; and, surely, when simple means can produce similar effects, we should not have recourse to those which are more complicated. And I am fondly led to hope, that, as it has been shown in this case that considerable portions of the head of the bone may be removed from the joint with a favourable result, not only the dreadfully maiming operation of amputation will, in nine cases of ten in which it was formerly practised, be abolished; but that even this operation of excision will be found to be less frequently necessary.

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## II.

*A Reply to the Queries of "a Young Accoucheur," respecting the Operation of Cephalatomia.* By Obstetricus.

I have always considered, that Medical Periodical Publications are especially useful, in affording to those who wish to acquire information a convenient means of proposing questions, stating objections, making remarks, &c. and thereby promoting a calm and temperate discussion of important practical subjects, to the great benefit of the profession generally:—it is therefore with regret that I see ingenuous questions passed over without reply or observation, and am in consequence induced to attempt resolving your correspondent's doubts (see vol. iii. p. 383) respecting the operation of Cephalatomia.

He inquires, "1st, Whether, after the operation of cephalatomia, the contents of the cranium having been evacuated, it would not be better to expedite the delivery by the use of the blunt hook or crotchet, than to wait, as some authors recommend, six, twelve, eighteen, or twenty-four hours, that the head may, if possible, be accommodated to the passage?"

To this query I would venture to reply, that it will be seldom right to leave the child to the action of the pains for eighteen or twenty-four hours after the head is opened; but if it can be ascertained, that the pelvis of the patient is so much distorted as to preclude the possibility of the child passing through it undiminished (a fact which is sometimes very difficult to be determined, particularly if it be a first child), it will very much contribute to the success of the operation and the welfare of the patient, to open the head while the pains are still strong, and let the fœtus be exposed to their action for some hours before the attempt to extract it be made.

The advantage of this mode of practice is, that the extraction of the child is ultimately effected with less suffering and danger to the mother, than if, immediately after the head is perforated, an attempt were made by means of the hook or crotchet to terminate the labour: for as the head must, if the perforator is used early, be lying high, the operator will have but little command of his instruments; and the resistance will be so great, that he must use much force to succeed in his endeavour, and consequently there will be considerable hazard of the instrument slipping and doing mischief: whereas, by waiting, the firmness of the bones and the elasticity of the soft parts will gradually give way, the child will advance lower into the pelvis, and the operator, *with his fingers alone*, will probably be able to loosen and withdraw the parietal bones, so as to render the blunt-hook sufficient to accomplish the delivery, to the total exclusion of the crotchet, which is at all times a very dangerous instrument.

If, however, the labour have been of very long duration, before the necessity of having recourse to the perforator is ascertained; or if the child have been for some time dead; or if the operation be undertaken because the woman's strength has already given way; then it seems expedient to proceed without delay to the extraction; because the benefit to be acquired by leaving the infant to the influence of the pains, and the flaccidity consequent upon the loss of vitality, will have been already obtained. The situation of the patient also will be such as to demand the most prompt removal possible of the infant, now become an exciting cause of inflammation and fever in the uterus. In this case likewise I would beg to remark, that the fingers of the operator will often supersede the necessity of either crotchet or blunt-hook.

2dly, Your correspondent asks, "whether rupture of the uterus does not oftener arise as a consequence of its long continued action; and possibly the pressing of the craggy bones of the cranium on the cervix uteri, than from any other cause?"

If by this question is to be understood the danger of rupture, after the perforator has been employed, it may be replied, that the principal danger of rupturing the uterus arises from the immobility of the body on which the uterus is acting: now the cranium being perforated and thus rendered more compressible, will yield somewhat to the pressure of the pains; and thus the danger of a rupture will be lessened.

As to the hazard of injuring the cervix uteri from the sharp or craggy edges of the perforated cranium, this would, I think, be generally prevented by the scalp which is always to be left as a guard and covering to the bones: but, in fact, if there be much of the cervix uteri undilated when the perforation is

made, it will not commonly be possible to remove the bones; and of course they must remain, not because we are careless of the danger, but because to remove it is out of our power.

Upon the whole I am inclined to believe, that it is the preferable practice to allow a considerable degree of delay before the perforator is employed; but if the operation be resolved on before the pains are suspended, then to allow some time, perhaps from four to ten hours, to elapse, after the introduction of the perforator, before proceeding to extract the child: if, however, the above enumerated circumstances have already taken place, it is proper to terminate the labour with as much expedition as can *safely* be used.

The doctrine taught by Dr. Osborn of opening the head early, and then leaving the case for thirty hours to the effects of uterine action, has been combated with no little success by Dr. Bland, in his very valuable, but neglected, "Observations on Human and on Comparative Parturition, 1794," to which I refer your correspondent for further information on this important subject.

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## III.

*Observations on the Effects of Sulphuric Acid on Infants at the Breast, when administered to the Nurse.* By O. W. Bartley, M.D. Bristol.

Mr thanks are due to the Editors of the *Repository* for their early reply to a query I proposed, (vide *Repository*, vol. iv. p. 289,) regarding the effects of sulphuric acid on the sucking infant when administered to the nurse; and I avail myself of this opportunity to offer them.

I have hitherto refrained from advancing any opinion on this subject, waiting for the time when some of your correspondents might publish the results of their experience; but as the testimony of Mr. Diamond* has confirmed my observations, I feel warranted in proceeding in the inquiry. Previous to my knowledge of the two cases which I have recorded, I had been often in the practice of administering sulphuric acid in similar circumstances; nor do I remember to have witnessed any unpleasant consequences resulting from its use, to the infants; the possibility of such an event never having presented itself to my consideration. Still might it not be presumed, that these effects may have been unconsciously witnessed from a

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* Vide *Repository*, vol. v. p. 110.

full confidence in the safety of the practice? or they may have been imputed perhaps to other causes.

It must be admitted, that in treating the diseases of infants we are the more liable to err in judgment, from the very imperfect information we can for the most part obtain, as to the seat and nature of their disorders, they being of themselves wholly incapable of giving any satisfaction on that head. Generally speaking, the complaints of children chiefly arise from obstructions in the *primæ viæ;* but our opinions as to the remote or proximate cause of these obstructions must be sometimes necessarily inconclusive; so that attention and experience alone can enable us to form a rational diagnosis. It often happens, that in the lap of security suspicion is lulled asleep, thereby preventing the detection of error; at present, however, suspicion rests on the practice alluded to, which therefore should be in future carefully watched, so that a due investigation may lead either to its confirmation or refutation: at the same time, I again request your correspondents to favour me, through the medium of the *Repository*, with the results of their researches and experience. I shall add a few remarks connected with the subject:

It cannot be doubted, that differences in the milk of women may arise from the qualities of the food: so that the milk of a woman who suckles, living on vegeto-animal food, never acesces nor coagulates from its own disposition, although exposed for a long time to extreme heat; whereas, if she live on vegetable food only, it, like cow's milk, easily and spontaneously acesces, and is acted upon by all coagulating substances; and hence experienced matrons, who give suck, carefully abstain from vegetable acids, as well as from those vegetables which are termed acescent; experience having taught them that they occasion considerable disorder in their infants, attended with much pain and uneasiness. Similar changes too, respecting food, are observed in the milk of animals, denoted occasionally by taste, smell, and colour. If cows feed in a pasture where garlic grows, the milk, and consequently the cream and butter procured from it, retain a powerful taint of the garlic, affecting both smell and taste. In like manner, if a cow subsist for some time on turnips, the flavour of that root is instantly discovered in the butter. Again, if it partake of those yellow flowers commonly called butter-cups, (ranunculus *acris*,) to which they are naturally averse, but are sometimes constrained to eat, in a pasturage where they are very thickly interspersed with the herbage, the milk is deeply tinged with the colour of the flowers particularly the cremoraceous part of it.

Admitting then that vegetables and their acids are capable of effecting such changes in this secretion, when they are received

into the stomach, does it not amount to a probability, that the use of mineral acids will produce analogous effects? Certain it is, that when sulphuric acid is added to milk taken from the cow, it evinces a coagulating power superior to that of the vetable or animal acids. Vegetable acids will coagulate milk; but the separation of the curd from the whey will be incomplete, and therefore unfitted for the purpose of cheese-making; in which process, the gastric juice of a calf is employed, under the appellation of rennet: yet I know a farmer, who has for many years on these occasions substituted, for the rennet, a very strong solution of the sulphate of copper; which has answered the intention in a more complete manner than could be obtained by any other means; and this too is effected without the addition of heat, which is always requisite where the former is used. This metallic salt is used from a motive of saving, both in fuel and in the cost of the rennet, which is greater than that of the sulphate of copper*.

To conclude. It appears to me most likely, that the acid in question given to suckling nurses or mothers will render the milk acescent, and thereby occasion those griping pains, with curdled, greenish, acrid stools, the consequence of acidity, which are often witnessed in infants, and are frequently forerunners of convulsions. I press the inquiry, because I consider the object of it in a more important light than that in which it appeared *prima facie*, and as well meriting attention; for as the largest rivers derive their sources from very small streams, so the most valuable truths may be elicited from things apparently insignificant in their origin.

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## IV.

*On the Treatment of Porrigo Scutulata.* By Orson Bidwell, Surgeon-Apothecary, Albrighton, near Wolverhampton.

In the fourth volume (p. 51) of the *Medical Repository*, Dr. Clanny has described a disease which is at variance with the appellation he has given it; inasmuch as the Impetigo *figurata* of Willan is not contagious, seldom affects children, and for the most part has its seat on the extremities; whereas the disease Dr. Clanny has described, is stated by him as being contagious, and having its seat upon the scalp. Is it not therefore probable,

* Never having heard that the consumers of the cheese thus prepared have experienced any injurious consequences from its use, or that the pigs who devoured the whey were in any degree affected thereby; may not milk be exhibited as an antidote, where a quantity of sulphate of copper has been swallowed?—Author.

We have to inform Dr. Bartley that the best antidote for all the cupreous salts is sugar.—Editors.

that he means Porrigo *scutulata?* There are however two circumstances which militate against this supposition; the apprehension Dr. Clanny entertained of the disease spreading over the body, and the inefficacy of the treatment he has recommended.

In the treatment of this species of porrigo, my practice has been considerable; and as long ago as the year 1804, my partner employed adhesive plaister in a great number of cases; and although in our practice it was not found to be successful in a single instance, yet we have occasionally found, that it is a useful remedy, especially in those tedious cases where the scalp had been for a long time irritated by stimulating applications. I have observed, that varying the applications very frequently, facilitates the cure of this intractable disease; and any one remedy that has been serviceable for a short time, has been found inert if the use of it have been long continued. I have indeed never known a case of the complaint removed by any single remedy; and it is a remarkable circumstance, that two ointments used alternately for ten or twelve days, will cure the disease; whilst neither the one nor the other of them, nor a combination of both, is capable of accomplishing it. Since my first observation of this fact, a considerable number of cases have yielded in a moderate time to the alternate use of ceratum sabinæ and unguentum hydrargyri nitratis. Where the complaint is recent, I dilute these ointments; but in more obstinate cases, I have sometimes found it necessary to increase their strength, by adding to the cerate a fresh portion of savin, and to an ounce of the ointment from half a drachm to a drachm of nitric acid.

About a year ago, I was consulted by a farmer whose children had been for a long time afflicted with this frightful disease. I was likewise informed, that several remedies had been resorted to, and that tobacco and oxymuriate of mercury in the form of lotion, had been freely applied to the parts without any benefit. I first recommended strong savin ointment, which was evidently of service for a short time; but as its good effects were not permanent, the *unguentum ad scabiem* of Banyer was used; and by the alternate use of it with the savin cerate, I had the satisfaction to find the disease removed from the whole family in about ten weeks.

Although I am not able to say that these remedies will, with more certainty, succeed than other stimulants used in the same manner, yet I have no hesitation in recommending the savin cerate as a remedy of considerable efficacy; and I am decidedly of opinion, that alternating the use of a metallic with a vegetable irritant, will be found of the first advantage in the treatment of this unmanageable disease.

## V.

*On the Effect of Nitrate of Silver on the Skin.* By E. Harrold, Cheshunt, Herts, Member of the Royal College of Surgeons, London.

There is a phenomenon of a very remarkable kind to which I wish to draw your attention, and that of your scientific readers, as it has not, I believe, hitherto been noticed in the *Repository*.

It is a very singular and unfortunate change of complexion occurring in some epileptic patients.

Habit has, of late years, rendered the various shades between *black* and *fair* so familiar to us, as to be no longer striking; but this peculiarity cannot escape observation, and cannot fail, at first, to produce some degree of pain to the spectator, from the apparent threat of momentary danger to the sufferer.

I know of several cases of this description; and one in particular which I have frequent opportunity of seeing. The complexion is *livid*, or a deep shade of *black* tinted with *blue*. It is really shocking; and one might almost say, with the poet,

> " Her gloomy presence saddens all the scene,
> " Shades ev'ry flower, and darkens every green."

This would be sad enough if it were the effect of mere disease; but there is, as I understand, no doubt of its being the effect of the internal use of a medicine—the *nitrate of silver*.

This is a very curious and interesting subject for investigation; and, as it has occurred in the practice of at least one of the most celebrated physicians in London, he, or they, might render essential service to the profession at large, and our fair country-women more especially, by favouring us with the history of cases of this kind; from which some very important deductions might be drawn.

We might perhaps learn, in the employment of this powerful and useful remedy, how far we may proceed with safety; whether it is the *quantity* or *intensity*, its long continuation, or the magnitude of the dose, that is productive of this unfortunate consequence; or whether any peculiarity of constitution, or admixture of other remedies, or improper diet during its exhibition, leads to this result.

We think that we understand the mode in which jaundice is produced; but there, the cause being removed, the effect soon ceases, as the deposited matter is soon absorbed again: here, unhappily, the tint is permanent.

Some one has lately called in question the existence of the rete mucosum in white people; where then is this deposit made? and where is the coloured matter fixed after tattooing? When

opportunity offers, it may be material to ascertain of what the deposited matter in these black and blue patients consists: this being discovered, some external chemical agent might perhaps be employed to decompose the substance, and either improve its colour or occasion its absorption.

I confess that, situated as I am, I should be almost afraid to acknowledge that I had so effectually spoiled a lady's complexion; but, as such a result could not have been foreseen (for there is, I believe, nothing analogous to it in the history of medicine), so no blame could attach to a regular practitioner, for doing every thing in his power to subdue an obstinate and formidable disease, which, till lately, was not known to yield with any degree of certainty to any other remedy: and men of deserved celebrity in the profession do themselves honour, and no injury, by recording unfortunate cases, which, being *so marked*, serve as beacons to others, warning them of their near approach to danger.

Besides, as there is a space set apart in your Journal for the admission of *Authenticated* Cases; which, if the narrator choose, skreens him from personal inconvenience, though it lessens the value of the authority in public estimation, I shall be happy if this notice produce any communication and discussion, elucidating so curious a fact*.

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## VI.

*Case of Cancer of the Mamma successfully treated.* By JONATHAN GREEN, Wenlock, Salop, Member of the Royal College of Surgeons, London.

THE mere detail of a successful case like the following, cannot, I am aware, confer credit on the practitioner in the present improved state of surgery; but it may tend in some degree to practical good.

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* We are aware that this singular effect of nitrate of silver on the complexion of persons who have taken it internally as a remedy in different diseases, as well as for epilepsy, has been noticed by several physicians of this and other countries. Our correspondent, the ingenious and learned Dr. *Albers*, of Bremen, some time ago met with an instance of it, and has communicated his observations on this phenomenon to the medical public. It is further remarkable, from producing this blue or dark tinge to the skin at an interval of two or three years from the time the nitrate of silver is exhibited, and afterwards remaining permanently fixed.

We accord with Mr. Harrold's wish, of seeing this curious subject investigated.—EDITORS.

Mrs. Rhoden, a widow of forty, who had never had children, with the appearance of a gross woman suddenly emaciated, as the skin seemed no where to lie close on the muscles, had been labouring upwards of twenty years with a cancer of the left mamma. She assigned as the cause, a hurt from an elbow she received when nineteen years of age; for soon afterwards a small hard lump began to occupy the place, which was a little painful only, when from cold or other causes she was indisposed. In this state it remained upwards of thirteen years, and was but little attended to; except, that generally at times, when the pain was more acute, various remedies were applied. Her general health was tolerably good; and the only alteration was, that from proper remedies not having been resorted to, or not persevered in; or more likely from the known inveteracy of the complaint in spite of all remedies, the schirrus increased in magnitude until it became the size of a hen's egg, becoming gradually more painful. Several surgeons were consulted, and advised its extirpation, which was not acceded to by the patient; who would usually apply to another in hopes of a remedy more to her mind. One at length was found, who said he would *gather* it for her, and applied an ointment that occasioned great pain, external pimples, and inflammation. It was then poulticed, and in a short time it was opened; but no issue of matter followed. It could not be again healed, and in her affliction, the patient resorted at last to the same opinions she had before neglected; but nothing could heal the breast now open, and in this state she dragged on a miserable existence. Anodynes she had long been in the habit of taking, and when I first saw her, her health had become much impaired.

She had a very sallow bilious complexion, and on entering the room, I was soon sensible of the fœtor of the wound, notwithstanding she was a woman of very cleanly habits. The discharge was so great, as to require it to be dressed mostly three times a day, and always twice, when a great quantity of folded linen was necessary to prevent the matter from becoming visible on the patient's gown. On the breast being exposed, I found two wounds in it; in one of which I could have put three fingers. It was so exceedingly tender as scarcely to bear touching; and on separating the hard spongy lips from each other, there followed a great gush of thin fœtid bloody ichor; on the clearing away of which, the internal structure appeared like half an orange that had been squeezed nearly dry. A probe could be passed the whole length in various directions. Besides this opening, there were two or three smaller fistulous ones; the nipple was drawn inward, and the breast was irregularly puckered round it. The schirrus was at this time larger than a goose's egg, and seemed but loosely attached to the

pectoral muscle; it was altogether so tender as scarcely to admit the breast, the axilla, or the line of lymphatics to be handled.

I urged the amputation of the breast, as my experience had seen similarly connected and aggravated cases completely cured by careful and extensive excision. She would not at this time consent to the extirpation; but I was desired to use what remedies I pleased, as she told me she had great confidence, and would persevere in the use of them. Although I did not regard it as a case in which any course of medicine could be useful, yet as about this time Dr. Carmichael's Essay, recommending the ferruginous plan, was in its eclat, I resorted to it fully and variously, the oxyphosphate and suboxyphosphate, &c. being given as directed. These medicines however, either when taken or externally employed, soon brought on great nervous excitability, and then fever, which might be fairly termed synocha; the breast swelled, became exquisitely painful, and discharged profusely; to subdue which, purging, poultices, &c. were obliged to be resorted to. Notwithstanding these effects, when a little recovered, the patient would resort to the iron again, until, in the course of a few months, her general health was very much impaired; the discharge had become so offensive as to render her truly miserable; and she now begged for what she had before refused..

On the 4th of October 1812, the operation was performed. A considerable part of the integuments was first removed with the nipple; after which, the tumour, down to the fascia of the pectoral muscle, was carefully dissected out, so as to leave that muscle quite bare. Two vessels only required the ligature. The thread-like bands leading to the axilla, together with two diseased glands from the axilla, were likewise removed: the integuments were then brought together by two stitches, and an easy dressing with a poultice was applied. The patient had a glister given her; some nitrous medicines were prescribed; and rest, a low diet, and bed enjoined.

On the 4th day it was dressed, and the cure went on favourably until the latter end of the third week, when the wound was completely healed, and continues so; her health being also greatly improved.

The tumour weighed 26½ ounces, although the fluid was pressed out of it by the mode in which it had been carried home by my assistant.

REMARKS.

1. The above case, in some measure, tends to substantiate some of the opinions advanced by Mr. Newnham*.

* Vide *Repository*, vol. iv. p. 353.

2. It proves that the disease termed cancer is almost entirely local; which I believe, too, is the opinion of most modern surgeons, and is becoming more so; and I think this detailed case will help to contribute to the more bold and prompt decision of surgeons; by which many lives may be saved to the community, and comfort given to some worthy members now affected with one of the greatest evils that flesh is heir to.

3. It must be allowed, that if cancer be constitutional, it is local for a considerably longer period than has hitherto been supposed.

4. The above case was considered as a very aggravated one by various respectable surgeons; and when the time in which it was in the ulcerated state be considered, it must almost carry conviction with it as to the propriety of an amputation even in a very protracted and advanced state of the disease.

5. At the time the schirrus was extirpated, it was considered almost an act of temerity: but of two evils the least was to be chosen, as death would soon have been the consequence. The great and sudden emaciation, loss of appetite, torment, and increasing debility, shewed that the operation had been protracted almost to the last day.

Finally. As the result must speak a good deal for the case, it is with satisfaction I can assert, that my patient's health is now as good as ever she remembers it to have been, with no other vestige of the disease but a clean cicatrix. She has never had any pains in the part since, although it is now three years and five months since the operation was performed.

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## VII.

*Case of the Extraction of a Cartilaginous Body from the Knee-Joint.* By Powell Charles Blackett, R.N. Member of the Royal College of Surgeons, London.

About the latter end of June 1815, E. C. ætat. twenty-seven, applied to me on account of a swelled knee, which he said was produced by a sprain occasioned by his endeavouring to jump on a bank, which he accomplished, but could not straighten his knee afterwards for the space of twenty minutes; and when he succeeded, he felt something give way in the joint immediately under the patella with a loud crack, accompanied at the same time with an acute pain, which left a kind of aching. I advised him to keep the parts wet with spring water, to take an aperient, and to remain in bed.

In the cours of four or five days the tumefaction had subsided, and t[illegible]art was free from pain. On the tenth day he told me, that he perceived something moving in the joint, and that it felt to him as if it were about the size of an unshelled al-

mond. I examined the part, but could not then discover any thing particular; and therefore merely applied a cotton bandage, and advised him to keep the limb at rest as much as possible.

Towards the end of August he again applied to me, and told me, that the day before he had felt such an acute pain of the knee while walking fast, that he was obliged to keep the joint in a state of flexion for several minutes. It was swelled as before, and attended with the usual aching pain, but more severe. I advised him to use the same remedies. The swelling subsided about the ninth day; but on the 13th he again discovered the almond, as he termed it, and retained it on the external condyle until I called upon him. I found it to be an extraneous hard substance moveable to every part of the cavity of the joint, and from the external to the internal margins. I immediately recommended him to have it removed as soon as possible, as I had not the smallest doubt that it would always be the cause of great inconvenience to him. To this advice he consented, and agreed to submit to the operation as soon as he could get a person to conduct his business for him during his confinement.

On the 21st of September 1815, I performed the operation. My first object was to fix the substance on the external condyle, in a line with the lower end of the rotula. The integuments were next drawn as tight as possible towards the biceps cruris over the tumour; and having grasped the substance between the fore-finger and thumb of the left hand, and made a longitudinal incision of about two inches through the skin down to the fascia, and then another of one inch through the fascia and ligament, the cartilaginous substance jumped out, followed by almost two ounces of synovia. The wound was dressed as usual, and the patient, having taken an opiate, was put to bed, and told to keep his leg straight. On the second day he took an aperient: on the fourth, the wound was united by the first intention; and on the seventh, I allowed him to get up and to walk once across his room. On the tenth day he went to his business, and has ever since been quite free from any pain or inconvenience.

The size of the substance was in its longer diameter three quarters of an inch; and in its shorter, half an inch. Its circumference at the smaller diameter was one inch and a half; it weighed twenty-nine grains and a half; its form is oblong (almond-shaped), convex on both sides; one side is cartilage and polished, the other is bony and also highly polished, with an irregular cartilaginous margin.

By operating at the outer side of the knee joint, I avoided wounding the branches of the crural nerve which go to the knee joint, and also the absorbents.

## VIII.

*Case of Puerperal Convulsions treated with success.* By Wm. Gaitskell, Rotherhithe, Member of the Royal College of Surgeons, and Society of Apothecaries, London.

About eight o'clock in the morning of Sunday the 10th of February 1816, Mrs. F., a young married woman, nineteen years of age, the term of her pregnancy having expired, experienced the usual symptoms of parturition, and sent for a female midwife. On examination per vaginam, she found the os uteri soft, and a little dilated; the pains slight, but frequent: and judging that her presence was not immediately necessary, she left Mrs. F. with a promise very shortly to return. During her absence, which was only for an hour, Mrs. F. was seized with head-ache, tinnitus aurium, and dimness of sight, which in half an hour more terminated in convulsion fits. The family being greatly alarmed, dispatched a messenger for me, and requested my immediate attendance. Being, however, from home, another professional gentleman was applied to, who having, also, at that time some engagement, by an unforeseen accident was not made acquainted with the message; so that more than two hours elapsed before I had an opportunity of visiting her, or she had assistance. In this interval she had had several labour pains, and suffered five or six very severe fits.

When I entered the room, I found the young woman quite insensible; and in a few minutes she again became strongly convulsed. On examination per vaginam, the os uteri was found dilated to the size of a three-shilling piece. The waters being discharged; the presentation was natural, and every thing favourable for delivery. To relieve the effect of uterine irritation on the brain, I took away 16 ounces of blood from the arm, applied 8 leeches to the temples, and had the head shaved, and cooled with evaporating lotions; whilst a blister was applied between the shoulders; and the bladder and rectum were attended to. These means moderated the violence of the fits; and in two hours more, labour terminated by the aid of the natural powers. The child was born alive and healthy. The placenta followed in twenty minutes afterwards, with only the usual assistance.

In about two hours I visited my patient again, and found her slightly convulsed; and on calling upon her in the evening, I found her quite insensible, and her pulse at 120. I was informed she had had several fits during my absence; on which account I left some particular directions to be followed if they should return. About an hour after this, the nurse was dispatched to inform me she was dead.

Next morning I called to inquire when she died, and to

solicit the inspection of the body; when, to my great surprise, I found she was still living; but so convulsed, that her friends thought the case hopeless, and in total despair wished me to relinquish all attempts for her recovery. However, with a few arguments, and gentle persuasion, I pressed on them the duty of perseverance; which at last had its influence, and they allowed me to prosecute my plan. As the face was flushed, the skin hot and dry, and the pulse strong and quick, I repeated the bleedings both generally and locally, with the evaporating lotions to the head, and purgative enemas. By these means sedulously pursued for three days, the convulsions ceased, her reason gradually returned, and in a week she became convalescent.

The lochia flowed sparingly, but the mammary secretion being established about the fourth day, and the child permitted to suck, she went on well, and is now (five weeks after delivery) in perfect health.

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## IX.

*Cases of Cynanche Trachealis, which yielded to the Use of Submuriate of Mercury.* By J. Millar, Apothecary.

1812, Nov. 5th, A. S. two years and a half old, was attacked with cynanche trachealis. The symptoms indicated high inflammatory action; the respiration was difficult, and could be heard before entering the house. There was a sense of suffocation, and a hoarse cough, not unlike the barking of a dog: the face was flushed, and the eyes suffused. He was immediately put into the warm bath; and during his stay there, a solution of tartar emetic was given, until it produced full vomiting. After his removal from the water, a blister was applied to the chest, and two grains and a half of hydrargyri submurias were given in a dry state, with the same quantity of sugar, and repeated every two hours.

Six P.M.—He is rather relieved. Let the calomel be repeated in doses of four grains, and the semicupium be used night and morning.

6th, Ten A.M.—He is much better, and has had two evacuations of dark offensive feces. Continue the calomel in doses of three grains.

Seven P.M.—He continues to improve. Repeat the calomel.

7th, Twelve M.—The respiration is quite free. Let the calomel be repeated, three grains every four hours.

8th.—No symptom of croup remained: but the bowels being costive, an aperient was given, and the use of the calomel

suspended. I continued to see the boy for several days afterwards, but had no occasion to give any more medicine. This child took 74 grains of calomel in fifty-six hours without producing the least soreness of the gums or ptyalism, which was the more extraordinary as the bowels were very torpid.

Two more children of nearly the same age as the above, were attacked about the same time; in both of which the same plan was adopted with the same success. One of them took 32 grains of calomel in twenty-eight hours; the other 42 grains in thirty-six hours; but in neither was the mouth in the least affected.

I anxiously wish that some of the numerous correspondents of the *Repository* would answer the following questions:—Were these cures effected by the calomel?—and if so, how does it act?

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## AUTHENTICATED CASES, OBSERVATIONS, AND DISSECTIONS.

### XVI.—*A Case of Disease surrounding the Knee.*

A WOMAN, aged 26 years, had a disease surrounding the joint of the knee, which had enlarged during the space of five months, so as to measure twenty-four inches in circumference. The tumour was irregularly hard, and gave to the touch an idea that fluid was contained in some parts, particularly over the patella; the surrounding veins were, as in similar cases, very large and tortuous; lancinating pains in the part were very frequent, and hectic fever was exhausting the constitution. Amputation was decided upon, and performed; but it had been deferred for some time on account of the woman being pregnant, until parturition had taken place.

The tumour upon dissection exhibited an irregular structure; some parts appeared in a subcartilaginous state, intermixed with a soft vascular structure; other parts appeared of a fibrous texture; and above the patella, in the situation of the lower part of the rectus femoris, was a large cavity containing more than a pint of gelatinous fluid, which was found to contain a great quantity of coagulable lymph. All the surrounding muscles were, from the effects of the disease, confounded; and the periosteum was thickened and intimately connected with the morbid structure. The surfaces of the bones, to the extent of the disease, were covered with rough spicula. The knee-joint was healthy. The woman died, about a week after the amputation, from dysentery.

## XVII.—*Case of Sloughing of the Bladder after tedious Parturition.*

THE interesting paper, by Mr. BARNES of Exeter, in the sixth volume of the Medico-Chirurgical Transactions, "On the Incontinence of Urine, consequent to Sloughing or Ulceration of the Bladder from injury during Labour," resembles a very unhappy case, attended with some peculiar circumstances, that may be worthy of a place in the *Medical Repository*.

In 1801 the Reporter attended Mrs. L. aged about 21, by trade a feather-dresser, a very sedentary occupation, in her third labour. He had been with her in two former labours; in which nothing particular had occurred that can relate to the present case; although in the first, from the precipitancy and inexperience of the person who delivered her of the child, the placenta being retained an unusual length of time, he was sent for; and found, upon examination *per vaginam*, that the uterus was contracted into the hour-glass shape, and firmly retained the placenta in the posterior chamber. But this gradually relaxing, the placenta came away easily and safely; and the patient did remarkably well.

The third labour proved tedious. The pains were at first strong; and, at length, after continuing some hours, gradually subsided, leaving the head of the child low in the pelvis. She expressed a peculiar kind of pain in the pelvis, but so indefinitely as to lead to no indication of the cause, nor indeed of the exact seat of it. Labour-pains returned; and she was delivered without any thing else arising to excite observation. Several days passed without any complaint; and the patient was considered to be as well as females generally are after parturition.

About eight or ten days from the time of delivery, Mrs. L.'s nurse mentioned that her mistress *passed no water*. Some inquiries were made, and the region of the bladder was examined; but finding neither constitutional disturbance, nor any fullness of that viscus, nor pain on pressure, and knowing the ignorance of the nurse and of the patient, it was concluded, as all other evacuations were natural, that there was some mistake in the account. However, the Reporter visited her again in two or three days, and still heard the same story. Again he inquired and examined, and again was sceptical.

In a day or two the nurse called to inform him that something protruded from the vagina, and was very troublesome to her mistress, upon every movement of the body.

Upon examination, a membranous substance was found protruding from the *os vaginæ*, four or five inches in length: upon introducing the finger into the vagina, it came away. But the most material effect of the examination was, that no vestige of a bladder could be discovered! In short the bladder had entirely sloughed away.

The moment the bed-clothes were turned back, and the bed on which Mrs. L. lay was exposed to view, it appeared almost saturated with moisture, which the smell too well denoted to be urine: and thus it was evident, that instead of making *no water*, there had been for some time a constant *enuresis*; and that because no urine was collected when she used a vessel, it had been judged none passed.

The case was irremediable, and she continued to live a comfortless creature. But she afterwards had several children.

The substance removed was taken home to be inspected more at leisure. It appeared to consist of by far the larger portion of the bladder; and the inner coat of it was profusely studded with small pieces of calcareous matter (phosphate of lime). In some places these were concentrated in regular patches of the size of a sixpence; in other parts detached, or consisting of three, four, &c.:—the coats of the bladder were much thickened, and bore evident marks of recent inflammation.

Could a morbid state of this viscus, previously to labour, account for the consequences which followed?

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## XVIII.—*Case of Melancholia.*

A WOMAN, 45 years of age, was brought into this state by great anxiety of mind. The disease had continued more than two months before the Reporter was called upon to visit her; at which time the character of the disorder seemed changed, having assumed a maniacal form. She was frequently outrageous, although naturally of a mild temper; and so unmanageable as to require the coercion of a strait waistcoat. Her eyes looked wild and rambling; the tongue was furred, the body costive, and the pulse quick but weak. The attention was first directed to diminish the excitement of the brain. For this purpose eight leeches were applied to the temples, and repeated occasionally; the head was shaved, and cooled by evaporating lotions, and the bowels were emptied by calomel and jalap; while light, noise, and external heat were avoided. By pursuing these means, the symptoms of the disease were mitigated; but the alienation of mind continued, with night watchings and occasional furious paroxysms. Under these circumstances, after the evacuations premised, a sedative plan was adopted; and 10 grains of camphor, with five of extract of henbane in a pilular form, were given every six hours. This soon procured for her some refreshing sleep, tranquillized the mind, and gradually restored her to reason.

# PART II.

## ANALYTICAL REVIEW.

### I.

*A System of Human Anatomy.* By JOHN GORDON, M.D. F.R.S.E. Lecturer on Anatomy and Surgery, and on the Institutions of Medicine; Member of the Royal College of Surgeons of Edinburgh; and one of the Surgeons to the Royal Infirmary. Vol. I. 8vo. p. 264. Longman and Co. 1815.

SYSTEMS of Human Anatomy are so various in their contents, that we know not, on taking up a volume of this sort, what we may reasonably expect to find in it. Some authors intermix physiology with their anatomical descriptions; some subjoin pathological and surgical remarks; whilst others confine themselves to the *mere anatomy*, the bulk, situation, and obvious mechanical structure of parts. For each of these plans there are some points of recommendation to be found. *Which of them is the best?* is a question to be answered only by entering into a consideration of the objects and advantages of anatomical studies.

Amongst medical sciences, Anatomy may be ranked as the foundation, and not the superstructure. It is the means, rather than the end of our pursuits; and possesses little value, except from the connexion it has with the other important branches of medical knowledge—the animal and vital functions—the nature, symptoms, and situation of diseases—the morbid changes of structure—and the performance of surgical operations. None dispute the justice of this remark: yet teachers will assert (and what we know of medical schools in this and neighbouring countries, seems somewhat in their favour), that the same kind of books on anatomy are not suited to the commencing student and to the established practitioner.

The work before us is intended chiefly, as the author tells us, for the use of students, and is throughout *purely anatomical.* He has scrupulously avoided the introduction of any physiological matter, "being convinced that it tends rather to interrupt and distract, than to illustrate the descriptive detail. The unconnected views," he observes, "of the functions of the body, which have been so commonly interspersed in this man-

ner with the description of its structure, are generally superficial, and not often accurate." For these reasons, therefore, he reserves every thing that relates to the department of Physiology for a separate elementary treatise.

From this preface, it may be conjectured that we are likely to find a volume which hardly admits of analysis, and demands little criticism. But we doubted not, from our knowledge of the character and industry of the author, that we should meet with some novelty even in the anatomical description, and some improvements in nomenclature, classification, and arrangement; subjects which have been less attended to by systematic writers in this country than on the continent. Although, however, we allow that "simple systems" of anatomy are necessary, yet we are disposed to give a preference to "mixed systems," as being more extensively useful: nor can we for a moment persuade ourselves to believe that there is any reason why views of the functions of the body should be superficial and inaccurate, when accompanied by the description of its structure. It is certainly a subject of regret, that after so much investigation, almost nothing has been explained of the necessary connexion between the anatomical structure and the living functions of parts; and that writers may separate the one from the other, in their descriptions, without rendering either of them at all less intelligible.

Dr. Gordon's System of Anatomy is to consist of eight parts, the first and second only of which, with a short introduction, are offered to the public in the present volume. The definition of life which begins the introduction, although strictly correct, is in some respects objectionable.

"Those bodies are called *living*, in which a certain appropriation of foreign matter is going on; and those *dead*, in which this process has either ceased, or never existed."

Now, in many instances we know that life continues, where this process of *appropriation* has *apparently* ceased, or never been *evident*. The science which treats of *living bodies* Dr. Gordon calls *vital œconomy*, which he subdivides into *animal* and *vegetable*; but which we should be disposed to divide still farther into *human*, *animal*, and *vegetable*. Each of these divisions comprehends two distinct objects of investigation, *Anatomy* and *Physiology*.

The first part of this volume treats of the external form, stature, and weight of the body. After having fixed, with the assistance of two outlines, the arbitrary limits of the external regions of the body, the author copies, from Soëmmering's *Icones Embryonum Humanorum*, a description of the appearances of the embryo from the first to the fifth month after im-

pregnation, with the distinctions in external form between the male and female fœtus. The mean height of the adult male is estimated at 5 feet 8 inches, and measurements of different parts of the trunk and extremities are added. When the upper extremities are extended laterally to a right angle with the trunk, the measurement from the tip of one middle-finger to the tip of the other equals the height of the body. The average height of the adult female is three inches less than that of the adult male. The embryo of three or four weeks, represented by Soëmmering, measures about $\frac{1}{8}$ of an inch. At the seventh week, it measures $\frac{5}{8}$ of an inch; at nine weeks, $1\frac{1}{3}$ inch; at about eleven weeks, 3 inches; at the fifth month, 10 inches; and at the end of nine months, $20\frac{1}{3}$ inches. There is some difference in the measurements by different writers, but they ought not to be attended to, since it is impossible to ascertain the exact age of the embryo.

"According to Soëmmering, the most rapid increase of the fœtus takes place during the first weeks after conception. He has observed, however, that the growth does not proceed in an uniform ratio; but that it is a little retarded during the second month; accelerated during the third; again somewhat retarded at the beginning of the fourth; from the middle of the fourth to the sixth, again accelerated; and from this period till the end of the ninth month, once more retarded.—p. 18, 19.

In the decline of life, there is, in general, an obvious diminution of stature. The head is diminished in all its dimensions; the trunk chiefly in length.

Dr. Gordon gives us nothing satisfactory respecting the average weight of the adult body; and he is indebted to Wrisberg, Burns, Roëderer, Hunter, and Clarke, for all that he has said upon the weight of the fœtus, the average weight of which, when born at the full time, seems to be about 7lbs.

In almost all parts of the body are found blood-vessels, nerves, and absorbents; and these, for the sake of brevity, Dr. Gordon calls *common systems;* whilst other substances, less general in their distribution, he denominates *common textures*, as *cellular substance, adipose substance, muscle, skin, hair, cartilage, bone, tendon, serous membrane*, and *synovial membrane.* This distinction of systems and textures resembles closely the arrangement of *systèmes generaux et particuliers* of Bichât, and is perhaps an improvement upon it. Bichât, who found cellular substance everywhere, and considered it to be more generally distributed throughout the body than even the blood-vessels, has placed it among the general or common systems. Dr. Gordon probably takes a different view of this substance, and believes it to be much more limited in its distribution.

The second part, which forms the chief bulk of this volume,

treats of the anatomy in general of these *common systems* and *common textures*. The first chapter is occupied with the circulating system, the heart and blood-vessels. This arrangement is new, and there appears much propriety in it. The circulating system is the first which is observable in the embryo; and something analogous to it is met with in all animated bodies. The heart is first described as if suspended in air in the same position, as to top, sides, and bottom, which it has in the erect human body. We were surprised, on reading this part of the book, to find so many pages filled with particular and minute description, under the title of *General Anatomy;* little more can be said, we believe, upon the anatomy of the heart, unless respecting its connections and relative situation. The outward form, colour, and dimensions of the heart are detailed, as well as the internal appearances of the auricles and ventricles. The author distrusts the experiments which have been made by others to ascertain the capacity of these cavities, and places little reliance on the researches which he has made himself; but in several trials, conducted with much precaution, he has found that the right ventricle contained 2½ oz. while the left contained only 2 oz. (p. 38). The thickness of the walls of these cavities is ascertained, as far as is possible, by measurement; and those of the left ventricle are found to be twice as thick as the right, the former being about half an inch. The textures of which the heart is formed are—the external serous membrane, thickest on the auricles; adipose substance; muscular coat, on which the thickness and strength of its sides chiefly depend; and the inner membrane lining its cavities.

"*In the ventricles* this (inner) membrane is as thin almost as the fibres of cotton, perfectly transparent, and without the slightest appearance of fibres. Neither blood-vessels, absorbents, nor nerves, have yet been seen in it. Maceration in water renders it slightly opaque. It is easily detached from the muscular fibres which it lines; but no intervening cellular substance, or such-like medium of connexion, can be seen between them. It is too slender to admit of being peeled off in large patches. Towards the tops of those ridges, or fleshy columns, which give rise to the tendinous cords, it is somewhat thicker and more opaque than at other parts.

"In the *right auricle,* the inner membrane which lines the fleshy cords is quite similar to that in the ventricles: but at all other parts of this auricle, and over the whole of the left, it has a different appearance. It is white and semi-transparent, and considerably thicker and stronger than the serous membrane. After slight maceration, it is disposed to peel in laminæ; but no fibres are perceptible in it; and, so far as I know, no one had yet seen its vessels or nerves. It is firmly connected to the muscular coat by a fine cellular substance. —p. 43, 44.

The author's accuracy is conspicuous in his description of the arteries and veins supplying the substances of the heart.

What he says of its absorbent vessels, he owes to Mascagni. The nerves of the heart are slightly noticed, and nothing mentioned of the smallness of their size when compared with the large mass to which they are distributed. The heart of the female is different from the male in being a little smaller. The heart of the fœtus is characterised in its form, chiefly by the greater proportionate size of the tips of the auricles. At three or four months they are so large as nearly to come in contact over the anterior part of the root of the pulmonary artery. The colour of the heart is generally lighter the younger the subject, which may be owing in part to the thinness of the serous coat in the earlier periods of life. The heart of the fœtus is always completely destitute of fat. Dr. Gordon thinks he has observed that the heart in old people generally acquires a deeper purple hue (p. 50); and he might have added, that it is generally more loaded with adipose substance, which, in the aged, leaves the extremities, and seeks the internal cavities of the body. The author's remarks on the valve of the *foramen ovale* deserve to be quoted.

"As this valve then is longer than the *oval hole*, it is obvious that, if it were stretched tight across it, like the parchment of a drum, it would prevent all communication between the auricles at this point. But it is not disposed in this manner. On the contrary, it is twice as broad as the space included within the line of its insertion; so that it admits of being pushed a considerable way towards the cavity of the left auricle, from the septum and the hole. When this is done, a short canal is formed, between the upper part of the valve and the portion of the septum immediately above the oval hole, opening into the left auricle by an orifice, of which the floating edge of the valve forms fully two-thirds. Through this canal, of course, the auricles may communicate; but I have been much pleased to observe (*Physiology* makes the application of the fact), that the axis of this canal corresponds exactly, in every instance, with the axis of the inferior cava vein; and that the valve forms, as it were, the posterior side of this vein continued."—p. 50, 51.

The whole of this description has reference to the fœtus of about four months. The hole and valve, however, are said to remain pretty nearly the same, until about the commencement of the ninth month, when the valve becomes tighter, its floating edge is shorter, and its insertion is nearer to the oval hole; so that at birth only a small oblique *slit*, at the upper part, is left, by which the auricles still communicate with each other. This *slit* diminishes, in a few months after birth, so as only to admit the point of a probe; and in this state it often remains throughout the whole of life, without any inconvenience being experienced.

It is difficult to condense into a smaller compass what the author has said upon the general anatomy of arteries. Their modes of ramification are various.

"Sometimes an arterial trunk runs for a considerable length, giving off branches in every direction, and yet not undergoing any diminution in size.—p. 54.

The instances of this, however, in the human body, are, we apprehend, very rare. More commonly the vessel ends by dividing into two or more large branches, which are sometimes equal, sometimes unequal, in their diameter; but whatever their relative size, their combined area is greater than that of the trunk from which they spring.

"After arteries have ramified to a certain degree of minuteness, they become so thin and transparent, that it is impossible to see them either with the naked eye or with the microscope. Sometimes, indeed, particularly in transparent parts, when the blood happens to stagnate in them after death, we can trace them a little farther than when they are empty; but this does not often happen. In order, therefore, to render these minute capillary branches of the arterial system visible, we are obliged to inject into them, through the larger trunks, some thin coloured fluid, such as a weak solution of glue mixed with vermilion: and from injections of this sort, all our knowledge of the ultimate ramifications of the arteries has been derived."—p. 55.

This summary remark, applied to the *human body*, may be true. The best evidence, however, of the continuity of arteries and veins, is derived from examining the transparent parts of cold-blooded animals, as the foot of a living frog, with the microscope. Distinct globules are seen following each other with a vibratory sort of motion, and taking such a regular course, as to prove that they are circulating in tubes which are themselves invisible. Injections of capillary vessels must always present them in a distended and unnatural form, very unlike what they exhibit in the living body.

Dr. Gordon, confining his description to what is capable of demonstration, allows but two ways in which capillary arteries are seen to terminate; they either pass distinctly into the capillary branches of veins, or end abruptly, unconnected with any other vessel. Their termination in *excreting* ducts, he thinks, is a point not sufficiently established in the way of actual observation. The inner surface of the larger arterial trunks, he observes, is yellowish; in the middling vessels, of a pinkish or flesh colour, and in the smaller branches, whitish, like the outer surface. Two inches of the common carotid artery of a man, removed twelve hours after death, bore a weight of 30lbs. before it gave way; and the external iliac, tried in the same way, bore 48lbs.: but no clear estimate of the strength of a *living* artery can be formed from these experiments. From comparative trials on the similar arteries of a living and dead animal, we believe that somewhat less force is required to tear through the former, by an instrument placed under it, than the latter.

All arteries, the diameter of which is not less than the twelfth of an inch, may be distinctly seen to consist of three *coats*. The *inner coat* resembles the inner membrane of the ventricles, being equally thin, transparent, and colourless; but it differs from it, our author tells us, in being a good deal more elastic. Neither vessels nor nerves have been seen in it. The circular fibres of the *middle coat* are laid closely together, side by side, without any intermediate connecting medium. These fibres, more firm and of a straw-colour in the large arterial trunks, become gradually softer and more flesh-coloured as the vessels diminish; and in those of middling size they resemble very much the muscular fibres of the heart. The chemical properties of this coat are not noticed by Dr. Gordon, although we observe that he has, in subsequent parts of his book, mentioned the chemical properties of several of the common textures. The substance called fibrine is uniformly discovered in the analysis of all parts that are decidedly muscular, but no fibrine is procured from the analysis of the coats of arteries; which affords a strong presumption that the *middle coat* is not muscular. It is abundantly supplied with small blood-vessels, which are often seen turgid with blood after death, and admit of being readily injected with coloured size or turpentine. No connecting medium can be perceived between the middle and inner coats of an artery; they seem merely to be applied to each other like the inner membrane of the ventricles to the muscular coat of the heart. The *external coat* of arteries consists of slender, white, shining fibres, like the fibres of cotton, very dense and tough, closely compacted together, and interwoven in every direction. It adheres firmly to the middle coat; but between them, Dr. Gordon says, there seems to be no connecting medium. The blood-vessels, however, supplying the middle coat, must pass to it from the external, and unite the one to the other. The thickness of the external coat varies much; in some vessels, in the vertebral, and the branches of the internal carotid, it is as thin almost as silk paper. It is the strongest and most elastic of all the coats of arteries; but to call it the elastic coat, as Hunter has done, is incorrect. All the coats of arteries, Dr. Gordon rightly observes, possess this property in a considerable degree; else those which are inelastic would, when an artery is stretched, be torn asunder. This, at least, we conceive to be the remark which the author had in his head, although he has not been fortunate in putting it down in very clear language (p. 60). The *cellular sheath* with which many arteries are enveloped, is not enumerated as one of their coats, because it does not form a part of the regular structure of an artery, any more than the cellular substance which covers muscles can be considered as forming a part of the muscular texture. A cellular sheath, we believe,

envelopes all large arteries concerned in operations; and the practical writer on Anatomy connects it with the description of the arteries, because it is as important to be recollected as any of its coats.

It would not have been inconsistent with the plan of Dr. Gordon's work, to have noticed here the mechanical effect of ligatures upon the dead artery; he could have taken the opportunity of enlivening his anatomical description with a fact of much importance in practice, by telling us how easily the internal and middle coats of an artery are cut through by a circular ligature, whilst it is almost impossible to cut through the external coat of any considerable vessel with a ligature of any size.

The only difference, mentioned by Dr. Gordon, in the general anatomy of arteries, in regard to age, is the greater absolute size of the capillary branches previously to the period of maturity, which is always more remarkable the younger the subject. In the decline of life, the capillary vessels become gradually smaller than in the adult; and all the arteries in the body seem to suffer a diminution in their strength and elasticity (p. 61).

We cannot collect much from Dr. Gordon's *General Anatomy* of Veins, to instruct our readers with. The coronary vein, at its entrance into the auricle, is said to be about a third of an inch in diameter; the inferior cava, an inch; the superior, about two-thirds of an inch; and the four pulmonary veins, about half an inch each. It has not been demonstrated, according to Dr. Gordon, that veins have any other origin than the capillary arteries, of which they are the continuations.

"It is impossible, however, in any instance, to fix the precise point at which the artery ends, and the vein begins; they pass insensibly into each other. Sometimes a sudden change in the direction of a capillary artery enables us to judge that it has passed into a vein; but in general we cannot be certain of this, until we see the vessel uniting successively with other similar vessels, and thus forming a larger tube."—p. 63.

Dr. Gordon notices the peculiar distribution of the vena portæ, which divides from trunk into branches, until it is resolved, within the substance of the liver, into capillary vessels. He might have added, that trunks of veins are sometimes formed from capillary arteries and capillary veins conjointly; as is the case with the *venæ cavæ hepaticæ*. The venous trunks of middling size are, throughout the body, longer and more numerous than the arterial vessels of the same diameter; and, in general, the area of all the veins of a part is very apparently greater than the combined area of all its arteries: hence it is obvious that the area of the whole venous system must be greater than that of the arterial. Haller states this difference to be in the ratio of nine to four.

The valves of veins vary much, even in vessels of the same diameter. There are instances of three being found together; and in the smaller vessels they often occur singly; but in general they are disposed in pairs, one valve being exactly opposite to the other. They are seldom so large, or so precisely adapted to each other, as to shut the tube of the vessel completely. They are found at all intervals, from four or five inches to a quarter of an inch, or even less. They are most numerous in veins of small size. Dr. Gordon asserts that veins are less elastic than arteries; and he suspects, notwithstanding the opinion of Wintringham and others, that they are also considerably weaker in their coats.

Veins commonly consist of but two coats only, but in some there is a third intervening between these in particular parts. The *inner coat* is thicker and much stronger than the inner coat of arteries. Neither blood-vessels, absorbents, nor nerves, are seen in it in the healthy state. The valves are regarded as being formed by duplicatures of this coat; but this, Dr. Gordon suspects, is rather supposed than demonstrated. They have a number of little white bands running through them in every direction. The *outer coat* of veins has the same structure as the outer coat of arteries. It is much thinner in proportion to the size of the vessel, and its attachment to the inner coat is very firm.

"In almost all the trunks and larger veins, a substance is found intervening between these two coats. Sometimes this substance surrounds the vein entirely; but in general it occurs in patches of different sizes. It varies a good deal in its thickness; being as thick in some parts as the outer coats, and only half as thick in others. It seems to be of a nature between the external and middle coat of an artery; the fibres being softer, darker coloured, and not so close, as those of the external coat; and yet firmer, whiter, and less regularly disposed, than those of the middle one. When we hold a piece of vein, containing this partial middle coat, between the eye and the light, it seems as if it were arranged into longitudinal fasciculi; but when we come to dissect it with the forceps, we do not find that its fibres separate more readily in the longitudinal direction than in any other.

"For about an inch before the entrance of the two cavæ into the right auricle, a stratum of scattered fibres, exactly resembling the muscular fibres of the auricles, may in general be seen in each of these vessels, between the outer and the inner coat."—p. 67.

Dr. Gordon's investigations of the absorbent system have produced nothing new to us in its general anatomy. The origins of absorbent vessels have been seen only on the surface of the smaller intestines with the microscope. On examining the capillary absorbents of other parts in the same manner, after a minute injection, many of these little vessels may be seen disappearing; but as no orifices are perceptible at the points where

they vanish, we cannot be certain that these are their origins. The distribution of the capillary absorbents, like that of the capillary blood-vessels, seems to vary in almost every texture of the body. When two middle-sized absorbents unite together into one, the trunk which they form is rarely or never larger; their anastomoses with each other are continual, and they seldom run any great way without dividing into branches, which soon unite again into a single trunk. The outer surface of an absorbent vessel is flocculent; the inner is smooth, like that of the blood-vessels. All absorbents seem to have valves, which are generally disposed in pairs; and in vessels of middling size they are found almost at every twentieth of an inch. Dr. Gordon, even in the thoracic duct, has been able to see but one coat: this resembles the inner coat of veins, and the valves appear to be merely *prolongations* of it. Absorbents are pronounced by all anatomists to be much stronger, in proportion to their size, than veins (p. 73).

Dr. Gordon agrees with Mascagni in believing that there is no absorbent vessel in the body, which does not pass through one absorbent gland, at least, before it joins the absorbent trunks. We cannot, however, reject the evidence of Cruikshank on this point, who affirms, that he has injected the thoracic duct from absorbent vessels on the back, without injecting any absorbent gland.

Absorbent glands are smooth on their surface, and in general of a greyish pink colour: some, however, are blueish; and a few almost jet black. They may be considered as consisting of two parts—a peculiar substance, and a thin pellucid membrane surrounding this like a capsule: the former seems chiefly to be composed of ramifications of absorbent vessels, closely compacted together; and the author borrows from Mascagni the following description of them:

"According to him, in order to shew the structure of the more superficial parts of the gland, the whole gland must be injected with quicksilver, by the *vasa inferentia*. When this is done, the *vasa inferentia* may be seen, just before entering the gland, dividing into branches. Some of these penetrate directly into the central parts of the gland, while others are distributed towards the surface. Of these, the larger branches may be distinctly seen bent, convoluted, and interwoven, in every direction; communicating freely with each other; becoming suddenly narrow at some parts, and at others swelling out into little cells, which are so numerous, that, when they are distended with mercury, the whole outer surface of the gland seems covered with little rounded eminences. The smaller branches again are seen subdividing and forming a net-work on the surface, and then disappearing, some of them by dipping down between the cells of the larger ones, and others by opening into these cells.

"Arising directly out of these cells, on the other hand, or ascending from between them, various other small vessels are seen,

which, after winding about on the surface, run together into larger branches, and then uniting with similar vessels coming out of the central parts of the gland, form the vasa efferentia."—p. 76.

Sometimes the absorbent vessels of a gland preserve a pretty uniform diameter throughout, so that there is little or no appearance of cells in any part of it. Besides the vessels, the only substance detected within the glands is a delicate sort of cellular substance, which unites the vessels together, and connects the whole mass firmly with the inner surface of the enveloping capsule of the gland.

In young persons the glands are in general rounder and more turgid; in old age they become smaller, flatter, and drier: but they never entirely vanish, as Haller has asserted.

Comparatively few anatomists have investigated the structure of the absorbent system with much assiduity or success. It is probable that it varies more in different ages and temperaments than any other system in the body. The productions of no anatomist that we have ever met with approach near to the plates of Mascagni; and we should be inclined to question the accuracy of his observations, were we not assured, by those who have had an opportunity of seeing many of his original preparations, that the representations which he has given of them are correct and not at all exaggerated.

The next part of Dr. Gordon's work contains "the Anatomy ingeneral of the Nervous System," which, at the expense of systematic arrangement, he has extended to a very considerable length. Besides the weight and dimensions, he minutely describes all that relates to the form and colour of the external and internal surfaces of the brain, deprived of its membranes. After noticing the different kinds of nervous matter which enter into its composition, he points out the particular parts in which each kind is found. He details the peculiar distribution, as well as the general structure, of the membranes of the brain; and sums up the whole with the particular origin of the cerebral and spinal nerves. So much for general anatomy! We are not, however, disposed to quarrel about classification, if the matter be good. It was, no doubt, convenient for the author to place things as we find them; so little can be said strictly upon the general anatomy of the brain, that the present volume might have shrunk into an insignificant size without it.

No organ in the body has had so many unmeaning terms applied to it as the brain. All parts of it have been described with nearly equal minuteness, because little or nothing is known of the relative importance of any of them. Indeed, the anatomy of the brain, as it has hitherto been given by most systematic writers, has interested the physiologist much less than the surgeon, and been chiefly useful in enabling the latter to ascer-

tain the deviations from natural structure and appearance, and to record them in connexion with the symptoms of disease.

Varieties are constantly observable in the shape of the bones, the distribution of the nerves and the blood-vessels, the attachments of muscles, or the form of certain internal organs. But those parts of the brain on which names have been bestowed, are very uniform in their outward appearance, and offer few varieties to distract the attention of the anatomist; which is perhaps the reason that almost every new writer on this subject erroneously strives to be more minute in his descriptions, in order to be accounted more estimable, than his predecessors. Our readers will have no difficulty in judging how far Dr. Gordon has led himself into this too common mistake.

Dr. Gordon places the commencement of the spinal marrow at the lower margin of the annular protuberance, or pons varolii: and he divides the cerebral mass into *brain proper* and *cerebellum*. The former weighs in general from 35 to 45 ounces; and its two halves are symmetrical or correspondent to each other; but the convolutions are seldom precisely alike, either in shape or size, in any two corresponding points of the opposite hemispheres. We must refer our reader to the many pages which are filled with a detailed account of the external and internal surfaces of the *brain proper*, as the only means of getting any just notion of them. Nothing can be more unphilosophical, we conceive, than to separate the *brain proper* wholly from the *cerebellum*, and describe, as our author has done, its appearances divested of all its membranes. There is much accuracy mingled with no small degree of obscurity; and the student, for whom Dr. Gordon writes, will scarcely be able to follow so complicated a description, even with the brain before him.

The cerebellum is estimated at from five to eight ounces in weight. After considering the form of its external and internal surfaces, to which we can name no greater objection than the useless introduction of many new terms, the author gives the chemical analyses of the brain by Vauquelin, Fourcroy, and others, without adding any thing from his own experience.

Soëmmering has distinguished four differently-coloured substances in the brain, *cineritious*, *medullary*, *black*, and *yellow*; and Dr. Gordon makes very similar distinctions by the terms *white* and *brown* nervous matter; the former of which varies from *orange-white* to *yellowish white*; the latter from *wood-brown* to *greyish-brown*, in different parts of the brain. The particular arrangement and proportion of these kinds of nervous matter in the different regions of the brain form a very interesting passage in Dr. Gordon's work. All the convolutions of the *brain-proper* are formed of a stratum of *orange-white matter*,

covered with a coating, from an eighth to a tenth of an inch thick of *wood-brown* matter. The corpus callosum is chiefly orange-white, with a slight intermixture of greyish-brown distributed in very fine layers. The fornix consists entirely of orange-white matter, and each of its anterior pillars is continued into the mammillary eminence of the corresponding side by a cord of orange-white matter, surrounded by greyish-brown matter, which penetrates into the substance of the cord, and divides it at many parts into five threads.

"The composition of the pituitary gland," Dr. Gordon observes, "is peculiar, and requires to be farther investigated. It is a good deal firmer than the other parts of the brain, and seems to be intersected by a texture different from common nervous matter. When it is pressed between the fingers, the nervous matter appears as if it were forced out of a sponge. In general, two distinct masses may be perceived in it; one occupying the fore part, approaching rather to purple in its colour, and another behind, softer in consistence and of a lighter hue."—p. 132.

The peduncles, or crura cerebri, are composed of orange-white matter, with a slight intermixture of greyish-brown: they are continuous, in each hemisphere, with a stratum of orange-white matter, from a fourth to a fifth of an inch in thickness, which runs upwards and outwards, external to the thalamus opticus, forming a gentle curve towards the median line. This orange-white matter then expands into an arch or vault, which penetrates through the middle of the corpus striatum, from one end of it to the other, and at last joins the central white mass of the convolutions along the whole border of the corpus callosum.

The pineal gland, independently of its peduncles, is described by Dr. Gordon as being composed of two substances; a species of brown nervous matter, softer in its consistences than that matter is generally, forms the chief mass of it. The rest is a substance like grains of sand, hard, semi-transparent, of a yellowish colour, never larger than the head of a pin in size, subsiding quickly to the bottom when put into water. A German writer has stated that this matter resembles the calculus of the bladder; others assert that it is phosphate of lime. Dr. Gordon has detailed some experiments upon its chemical properties, which would induce us to believe that it very closely resembles osseous substance.

Dr. Gordon describes only two membranes of the brain, the *arachnoid*, and the *pia mater:* the dura mater belongs rather to the bony cranium than to the brain.

The *pia mater* varies much in thickness and strength. In some parts it is more than an eighth of an inch thick; in others, thinner than the finest hair. In certain situations it is as deli-

cate almost as a cobweb; in others, loose and spongy. Minutely injected, it looks like a texture of blood-vessels. Its internal surface, when peeled off from the substance of the brain and floated in water, is villous or flocculent; but Dr. Gordon misapplies a term by calling it also hairy. It is connected to the substance of the brain only by the minute branches of arteries and veins; and as the substance of the brain contains only vessels of very small size, it follows that all the capillary arteries and veins of the pia mater are situated towards that surface of the membrane which is nearest to the substance of the brain; and that all the larger branches are placed more externally.

The reader will not fail to find some parts of Dr. Gordon's account of the distribution of the pia mater to particular parts of the brain very clear and instructive. The velum interpositum of Haller he calls the *choroid membrane*, to distinguish it from the choroid plexus. We may also observe here, that the third and two lateral ventricles are described as a common cavity, under the title of the central fissure of the cerebrum; and that the fourth ventricle is termed the central fissure of the cerebellum. Into the last of these Dr. Gordon asserts that there is no prolongation of the *pia mater*. A history of the particular arterial and venous branches of the pia mater seems to us foreign to this part of Dr. Gordon's work, and therefore we pass by what he has said on this subject. We will, however, suggest to him one *general* remark. The minute arterial branches of the pia mater have corresponding veins accompanying them; but the venous trunks of any considerable size follow a very different distribution and course from the arteries; a peculiarity which distinguishes the pia mater from almost every other membrane in the body.

Bichât* describes the arachnoid membrane as being continued from the external surfaces of the brain into the cavities of all the ventricles, by an oval hole near the vena galeni; the exact situation of which he has not clearly pointed out to us. We know of no anatomist who has been able to discover it: and Dr. Gordon not only questions the accuracy of Bichât in this respect, but even expresses his doubts whether there be any membrane lining the ventricles at all. This is not the only instance in which Dr. Gordon combats the opinions of modern anatomists: he is convinced that the extension of the synovial membrane over the surfaces of articulating cartilages is altogether an anatomical *refinement*, and *fears* that the continuation of the tunica conjunctiva over the transparent cornea

* Traité des Membranes, p. 218.

is but a *fiction.* That this last is no fiction, however, can be readily shewn, we believe, by maceration; and proofs in favour of the rest may be selected from pathology and comparative anatomy: but it would be loss of time to offer these to an author who seems to reject all arguments from analogy.

Respecting the brain at different periods of life, Dr. Gordon gives us nothing new from his own observation. The convolutions of the *brain proper* begin to appear in the embryo only about the third month. The laminæ of the cerebellum are developed a good deal earlier. There is no gritty substance in the pineal gland before birth. The brain in the embryo of five or six months is almost fluid, and increases gradually in consistence from that time until old age.

Dr. Gordon enumerates three membranes of the *spinal cord.* He reckons the ligamentum dentatum as one of them; and his account of it is accurate beyond any thing that is elsewhere to be found respecting it.

Nerves are composed of filaments of nervous matter, inclosed in sheaths of a peculiar substance, which very closely resembles cellular substance. The olfactory is the only nerve in which the brown species of nervous matter occurs; in all others it is of the yellowish-white kind. The neurilema may be dissolved by macerating any nerve in muriatic acid; and the size, form, and connections of the nervous filaments by this means examined. Reil, who first happily employed this plan, also found that, by macerating a portion of nerve in a diluted alkali, the nervous matter was dissolved, while the neurilema remained entire; so that the latter, after this operation, might be injected with quicksilver, shewing all the little canals in which the filaments of nervous matter were contained, and all the bundles of these which were united into fasciculi (p. 198). The optic nerves are peculiar in having their external sheath composed of a substance possessing the structure of tendons.

Dr. Gordon tells us that by the origin of nerves, he merely means

"that precise point where, supposing them to spring from the central mass, as the trunk of a tree does from its root, they first completely leave this mass."—p. 195.

After such a definition, we need not trouble our readers with Dr. Gordon's account of the origin of the nerves.

The anatomy in general of the common textures, which we have already enumerated, is comprehended in the rest of this volume. There is little enough said of cellular substance, which is first examined. The following passage contains a doubt which, we will venture to say, exists in the minds of few anatomists of the present day besides the author's:

"Without mechanical distension of some sort, there is no appearance of cells in this texture, either in the living or the d

body. It is merely a substance, of which the parts are so constructed, as to assume this arrangement when they are gently separated from each other. Whether it consists, in its natural, undistended state, of numberless fine laminæ, of a definite size and form, closely applied to each other; or whether the cells are not formed by the mere accidental separation of layers of the substance, always accompanied by greater or less laceration of parts, and of course varying with the direction and degree of the distending force, it is not easy to determine."—p. 221.

Bichât affirmed that fat was a deposition of oily fluid in common cellular subtance; an opinion which has been effectually overturned by M. Beclard, in a short thesis upon the subject. Dr. Gordon classes adipose substances as a distinct texture, although it is perhaps everywhere accompanied by cellular substance. It is obviously composed of a vascular cellular texture containing an oily matter: the latter, Dr. Gordon thinks, exists always in the living body in a fluid state. He has observed that

"in surgical operations, where a thick portion of adipose substance happens to be divided, minute globules of oil may be seen swimming, in great abundance, in the stream of blood that flows from the wound."—p. 224.

Respecting muscle, Dr. Gordon gives us little more than the microscopic observations of Prochaska. The primary, or simple muscular fibre, into which the fibrous part of every muscle may be resolved, does not, he thinks, much exceed the forty-thousandth part of an inch. These primary fibres seem to be solid diaphanous filaments, and not to be farther divisible into still smaller fibres. None of them, on a transverse section, are perfectly circular; they are all more or less flattened or angular. It has not struck Dr. Gordon, however, that this irregularity of shape is probably produced by the mechanical violence used in making the transverse section. There is little doubt, from their external appearance, that they are perfectly cylindrical. They have the same form, dimensions, and character in every species of muscle; and they preserve the same diameter throughout the whole of their length.

Dr. Gordon has treated more copiously of the skin than of any other texture. We have already, in the *Repository* (vide vol. v. p. 4.), made an interesting extract from this part of his work, in which he maintains that there is no such thing as a light-coloured rete mucosum in the European, corresponding to the black one of the negro.

Dr. Gordon, after many observations with the microscope, is inclined to pronounce the hair to be a solid cylinder throughout, without cells or canals of any kind. He imagines that the bulb of human hair consists of two coats, the same as it is evidently observed in the seal; and this is almost the only

instance in which we find the author judging from analogy between man and animals.

Upon cartilage and bone we really find nothing worthy of notice—nothing beyond the most elementary and commonly received notions. Besides ligaments and tendons, the author includes periosteum, perichondrium, aponeuroses, fasciæ, &c. under the head of *tendinous substance*, and regards them all as the same texture.

*Serous* membrane is scarcely so thick as a wafer, with one surface, perfectly smooth and free, turned towards certain cavities of the body; and another more or less flocculent, connected by a fine cellular substance to the sides of these cavities, or to the surfaces of their contents. It is soft, flexible, of considerable strength, and nearly transparent when its blood-vessels are not filled with blood or coloured injection.

"A successful injection of size or turpentine, coloured with vermilion, brings into view, in general, such an amazing number of fine blood-vessels in this membrane, that one would be almost inclined to suppose that it was entirely composed of arteries and veins. By proper management, however, absorbents may be injected in it, even with quicksilver, to an equal degree of minuteness. There can be no doubt, therefore, that it is chiefly composed of these two systems of vessels. Whether it contain any thing else but vessels, remains to be ascertained. Nerves have not yet been traced into it; although they may be seen, everywhere, ramifying on the parts with which its external surface is connected."—p. 259.

The concluding part of Dr. Gordon's book is occupied with an account of the anatomy in general of the synovial membrane, the last in the list of the common textures. It differs from the serous membrane in its anatomical characters, by possessing less strength and very little vascularity in its healthful state; by its blood-vessels being almost never found filled with blood after death, nor receiving any artificial injection; by its absorbents being incapable of demonstration; and by its exhibiting very delicate fibres, like those of cellular substance, or like the finest filaments of tendon, after slight maceration.

We have interspersed so many observations in the progress of our analysis, that nothing remains to be added, except a remark or two upon the work in general. Dr. Gordon has accomplished to perfection the plan which he evidently prescribed to himself from the beginning, by keeping clear of physiology and all speculation, and confining his description to matters of demonstration, the shape, colour, weight; the properties, chemical and mechanical, of the different parts which compose the human frame. A book on such a plan affords more opportunity of shewing industry and sound judgment, than displaying traits of fine genius. As to the author's style, we can say nothing by

way of direct commendation; it could not be less embellished; nor could it, without treating some subjects less minutely, be rendered more clear. Whatever the author was not well convinced of in his own mind, he has invariably stated with doubt and precaution;—an excellence of no trifling importance in a systematic writer.

Upon the whole we have much reason to confide in the accuracy of Dr. Gordon; and after an attentive perusal of the work before us, we are convinced that we can recommend to our readers no book on anatomy so little likely to lead them into error.

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## II.

*Traité des Poisons tirés des Règnes Minéral, Végétal, et Animal, ou Toxicologie Générale, considérée, sous les Rapports de la Physiologie, de la Pathologie, et de la Médicine Légale.* Par M. P. Orfila, M.D. &c. &c. Tome second, 8vo. pp. 682. Paris, 1815.

(*Continued from page 337.*)

The fourth chapter is extremely interesting, and treats of the *narcotic poisons*, which constitute the fourth class of our author's general arrangement. The following is the definition of this class:

"The *narcotic poisons* are those which are rapidly absorbed, occasioning stupor, drowsiness, paralysis or apoplexy, and convulsions."

The first and most important of the narcotics is Opium. After noticing the usual physical properties of this substance; its colour, taste, smell, solubility in water, vinegar, lemon-juice, wine, and alcohol; its chemical components, as obtained by *Derosne*, are enumerated:

"1°. a crystallizable substance; 2°. extractive; 3°. resin; 4°. an oil; 5°. an acid; 6°. a little fecula; 7°. mucilage; 8°. gluten; 9°. extraneous matter, consisting of the stalks of the plants, and sometimes a little sand and flint."

In a set of experiments upon dogs, instituted by M. Orfila, to ascertain the effects of opium on the animal economy; in which it was employed in the crude state, and in the form of extract obtained by the action of water; it was introduced into the stomach, both with the œsophagus in its natural state and tied; applied to the denuded cellular tissue; and injected, in a state of solution, into the rectum and the jugular vein. A number of cases are, also, quoted from various authors to illustrate its effects on the human system; from which and his ex-

periments upon dogs, our author fully confirmed the following results of *M. Nysten* upon this subject:

" 1°. The aqueous extract obtained with cold water, and submitted to one evaporation only, is more active than the other products of opium, without excepting the gummy extracts of Cornet, Baumé, and Rousseau, prepared by repeated evaporations and long digestion, or by fermentation.

" 2°. The scarcely soluble resinous matter produces the same effects as the aqueous extract, but requires to be exhibited in larger doses; and it does not inflame the mucous membrane of the stomach. If in any case of poisoning by opium the stomach have been found inflamed, this circumstance is to be ascribed to the spiritous menstruum in which the opium may have been taken, or to some other irritant, perhaps administered as an antidote.

" 3°. The crystallizable salt *(sel essentiel crystallisable)*, improperly called the narcotic principle, is still less active than the resin. *M. Nysten* took four grains of it, and experienced only a slight disposition to sleep.

" 4°. The pellicle which separates during the evaporation of the extract, is however less energetic than the salt.

" 5°. The distilled water of opium, which is strongly saturated with the aromatic principle, may produce inebriety and sleep when taken in a large dose. *M. Nysten* swallowed two ounces of it without experiencing any sensible effect.

In a note, M. Orfila remarks, that five ounces of the distilled water, obtained by the distillation of six ounces of water upon two ounces of opium, when introduced into the stomach of a dog, whose œsophagus was tied, killed the animal in twenty-four hours, although during the first ten hours no sensible effect was produced.

" 6°. Three or four grains of the aqueous extract of opium, injected into the carotid of a dog, kills it in a few minutes.

" 7°. A somewhat larger dose is required to produce the same effect when it is thrown into the crural or the jugular vein; and injecting it within the pleura or the peritoneum, also, proves fatal.

" 8°. The fatal effects of opium are much less prompt and energetic, when it is injected into the cellular tissue.

" 9°. The effects are very energetic when the aqueous extract is injected into the bladder; but a considerable quantity is requisite for producing death.

" 10°. The application of opium to the brain is not mortal; although it is by its action on this organ, that opium taken into the stomach produces dangerous symptoms.

" 11°. Opium does not destroy the contractility of the muscles to which it is applied, and the symptoms of poisoning which occur in that case depend on the absorption of the opium and its action upon the brain. A heart plunged into a solution of opium continues to contract in it for a very long time.

" 12°. The supposition that the effects of opium and those of wine are analogous, is incorrect; opium, whether the dose be small

or large, always lowers the vital powers; and it is owing to this circumstance that it operates as a sedative: wine, on the contrary, always reanimates these powers; and even when it produces a debilitating effect, this is the consequence of too high a degree of previous excitement.

"13°. This poison does not produce death by acting upon the extremities of the nerves of the stomach, as *With* believed; for animals, in whom the par vagum has been divided on both sides, die in two or three hours, after having experienced the inebriety, somnolency, and convulsions, which we have already noticed."

In considering the opinions of *M. Nysten*, regarding the modus operandi of opium on the vital functions, our author inquires, "ce médicament doit-il être rangé parmi les narcotiques, ou parmi les excitans du système nerveux?" Or, in more simple language, is opium to be regarded as a stimulant or a sedative?

In support of the opinion that the operation of opium is stimulant, M. Orfila quotes the authority of *Tralles*, with whom it originated, and that of Dr. John Brown, supported by *Chardin*'s account of the effects it has upon the Turks, who are in the constant habit of eating it; and who are excited by it to a very high degree before its debilitating effects are perceptible. On the other side of the question, he quotes the theory of Professor *Barbier* of Amiens, who contends that all the phenomena produced by opium are the result of a debilitating influence; and those of *Mayer*, a Professor at Frankfort upon the Oder, who attributes the quieting effect of opium to a previous excitement which occurs only when it is administered in a large dose, in the same manner as fatigue and an excess of nourishment are followed by rest produced by indirect debility.

M. Orfila's own opinion is at variance with both of these theories; and he conceives his experiments authorize him to draw the following conclusions:

"A. That opium, in a large dose, cannot be classed either under narcotics or stimulants; as it exerts a peculiar action which cannot be accurately designated by any of the denominations usually employed in Materia Medica.

"B. That a small dose of opium appears to produce stupefaction only; but sometimes, in consequence of a peculiar idiosyncrasy, it induces a great degree of excitement.

"C. There is no analogy between the action of opium and that of spirituous liquors taken in large doses."

We perhaps anticipated too much: for we must confess that we are disappointed with the manner in which our author has investigated the nature of this very important poison. He does not, indeed, appear to have had sufficient opportunities of observing the effects of opium upon the human system; and it is almost unnecessary to remark that, in a subject of this na-

ture, accurate conclusions, as to the mode in which a poison, the action of which is confined to the nervous system, produces its effects, cannot be formed from the relations of others. His experiments upon dogs are valuable only inasmuch as they determine the comparative degree of the virulence of the poison as it is introduced in different ways into the system. An accurate analysis of opium, and a satisfactory theory of its action upon the animal œconomy is still a desideratum.

*Of Henbane*, (Hyosciamus *niger*,) la Jusquiame noire. Fourteen experiments upon dogs with various parts of this plant, both in the dried state and differently prepared, are detailed by our author; from which, and from various histories of cases of its poisonous effects recorded by authors, he concludes,

"1°. That the juice and the decoction of the root of henbane, in its most perfect state (en pleine végétation), produces fatal effects when introduced into the stomach; but milder effects are produced, if the plant be taken in the beginning of spring; 2°. That the juice of the leaves is less active; 3. That the aqueous extract prepared by evaporating the juice of the recent full-grown plant in a water-bath, possesses nearly the same poisonous properties as the juice itself; but an extract obtained from a decoction of the plant in an imperfect state, or over-dried, is incomparably less energetic; which explains why *the extract, as it is occasionally procured in the shops, does not possess any virtue*; 4°. That these preparations produce nearly the same effects, whether they be applied to the cellular tissue, introduced into the stomach, or injected into the veins: in the last-mentioned case, a very small quantity only proves fatal; 5°. They are absorbed and carried into the course of the circulation; and produce a remarkable effect upon the nervous system, not unlike mental derangement, which is succeeded by stupor; 6°. They do not inflame the stomach; 7°. They apparently act in the same manner upon men as upon dogs."

Several cases are added to demonstrate that Hyosciamus *albus*, *aureus*, *physaloides*, and *scopolia*, are also poisonous.

*Of Prussic Acid.*—To some of our readers a short account of the physical and chemical properties of this acid may not be unsatisfactory.

In its most concentrated state, prussic acid is a colourless transparent fluid, having a very strong odour of bitter almonds, with a cool taste, which, however, soon becomes acrid and irritating, and excites coughing. Its specific gravity is 0,70583. It reddens tincture of litmus; boils at 79° Fah.; congeals at 15°. below 0; and crystallizes readily when highly concentrated and dropped upon paper, owing to that part of it which is volatilized carrying off a portion of the caloric of that which remains fixed. It is inflammable; soluble in alcohol, although scarcely so in water; and precipitated white from its solutions

by nitrate of silver. Combined with potass and oxide of iron, it furnishes a double salt of a yellow colour, which dissolves in water, and the solution of which precipitates salts of iron at a second and third degree of oxidizement blue; those of copper at a maximum crimson with a shade of brown; those of uranium of a blood colour; and those of nickel of an apple-green.

As varieties of this acid, or rather as containing it, our author notices the distilled water, and the essential oil of Prunus *lauro-cerasus*, and the bitter almond. The deleterious effects of the acid, both when pure and in its modified state, in these substances, on all animated beings, is well illustrated by a most extensive set of experiments; and its corresponding effects on the human system is evinced by cases quoted from various authors. Among the latter, we were surprized to find the story of *Scharinger*'s death brought forward as a proof of the fatality attending the application of prussic acid to the entire skin. Our readers will recollect that we took some pains to ascertain the truth of that report; and published a letter from *Baron de Jacquin* at Vienna to our friend *Dr. Gumprecht* (vide *Repository*, vol. iv. p. 519), which proved that it was void of any foundation in truth; and detailed the circumstances connected with the death of that celebrated chemist. We the more regret this circumstance, as it tends to lessen our confidence, generally, in many of the evidences brought forward by our author.

M. Orfila informs us, that, on the dissection of animals poisoned by prussic acid, the alimentary canal does not appear to be at all affected; the right ventricle of the heart retains its irritability, whilst that of the left is completely destroyed; the viscus of the thorax and abdomen, the liver, the kidneys, and the right auricle of the heart, are gorged with blood; whilst the whole arterial system is empty; and the lungs are more or less blotched. The brain, except that it is sometimes a little softer, and the vessels of its base fuller than usual, does not appear to be altered; and, although the muscles are pale, yet they retain their irritability to a certain degree. These effects do not correspond with the appearances on the dissection of the remarkable case recorded by *Hufeland**, in which vestiges of the highest excitement were found in the brain and in all the vital organs.

The following are the conclusions deduced by our author from the facts and experiments which he has detailed:

" 1°. That prussic acid proves fatal to the different classes of animals, but more particularly to the warm-blooded. Insects resemble warm-blooded animals in the promptitude with which they

* Vide *Repository*, vol. iv. p. 506.

are affected, but differ from them by the inverse order in which the parts die: 2°. That death is more quickly produced in proportion to the activity of the circulation, and as the organs of respiration are more dilated: 3°. That it is more pernicious to young animals: 4°. That it exerts its influence upon every tissue with which it comes in contact, except the nerves and the dura mater: 5°. That the intensity of its action varies when it is applied to different parts; thus, for instance, it is extremely deleterious when injected into the jugular vein, or into the arteria aspera (*Emmert*); less so when injected into the thorax; and still less when introduced into the stomach or the rectum. Its action is still weaker, however, when it is applied to wounds; but death sooner occurs, when the wound is made in the fore limbs of quadrupeds: 6°. If the dose be not strong enough to occasion death, the animal very quickly revives, particularly if the poison have been placed in contact with the eye, or introduced into the stomach: 7°. That its effects depend on its being absorbed and carried into the course of the circulation: 8°. That its action is slow, but uninterrupted, when it is placed in contact with any part, the communication of which with the brain or the spinal marrow is cut off: 9°. That it appears to operate upon man in the same manner as upon the warm-blooded animals: 10°. That it destroys irritability in the same manner as the narcotic poisons: 11°. That it does not produce any inflammatory lesion capable of being detected after death: but the venous system appears gorged, whilst the arterial is empty: the pupils often dilated, and the lungs blotched—changes common to a great number of the narcotic poisons."

M. Orfila remarks that, although the distilled water and the oil of the laurel (Prunus *lauro-cerasus*), and the bitter almond resemble the prussic acid in their operation, yet, the aqueous extract of the laurel is scarcely poisonous, owing to the volatilization of the prussic acid, during the evaporation necessary for the preparation of the extract.

*Of Strong-scented Lettuce* (Lactuca *virosa*).—The whole of this plant contains a viscid, bitter, disagreeable-smelling, milky juice. A pound and a half of the leaves were swallowed by a strong dog, without producing any deleterious effect: but the aqueous extract, whether applied to an exterior wound, or taken in a large dose internally, occasioned, sooner or later, the death of the animal. M. Orfila concludes, from his experiments,

"1°. That the extract of the *lactuca* prepared by evaporating the juice of the plant with a gentle heat, is more active than that prepared from the decoction. 2. That it is absorbed and carried into the course of the circulation; and that its action is more intense when it is injected into the jugular vein, than when it is applied to the cellular tissue of the thigh; but even this application is followed by more marked effects than when it is taken into the stomach."

*Of the genus Solanum.*—From the experiments of M. Dunal,

it appears that the Solanum *dulcamara* may be administered in a very large dose to the lower animals without producing any inconvenience; and he states a case of a man who took 32 grs. of the aqueous extract with impunity. In stating these particulars, however, our author, who does not seem to have made any experiments on this plant, should have informed his readers that much of the activity of the dulcamara depends on the season of the year at which it is gathered. We have seen a large dose of the decoction of the summit twigs of this plant, gathered in autumn, produce nausea, vomiting, violent head-ache, vertigo, and syncope.

Dunal also asserts that Solanum *nigrum*, *villosum*, and *fuscatum*, are as inert as he has stated the *dulcamara* to be; but the experiments of M. Orfila have led him to form a different opinion; and to conclude,

1°. That the extract of the *black nightshade* is in a small degree poisonous; 2°. That it is slowly absorbed, and destroys the sensibility and the mobility of the muscles."

He notices the remark of Dunal, that the juice of Solanum *nigrum*, *villosum*, *nodiflorum*, and *miniatum*, when applied to the eyes, occasion a slight dilatation of the pupil, and render the organ insensible to the impression of a bright light; but the degree of this effect is less than that produced by the juice of *belladonna*.

*Of the Yew* (Taxus *baccata*).—After noticing the difference of opinion that has prevailed regarding the poisonous effects of this plant, our author details two experiments, in which a solution of 40 grains of the aqueous extract, prepared from the leaves, was injected into the jugular vein of two dogs. The larger of these animals experienced vertigo, but recovered; the smaller died; but no morbid alteration was perceptible on opening the body.

*Bane Berries* (Actæa *spicata*) have, as the name implies, been considered as poisonous; but M. Orfila states that he has given from four to six ounces of a strong decoction of the plant, collected in May, to dogs; and adds, "nous n'avons observé aucun phénomène sensible."

*Somniferous Physalis* (Physalis *somnifera*).—Plenck classes the roots of this plant with narcotics.

*Yellow Azalea* (Azalea *pontica*).—A case is quoted from Gmelin, to shew that the flowers of this species of azalia are poisonous.

*Officinal Lentil* (Ervum *ervilia*) Ers.—Our author quotes *Binninger* and *Valisneri* as authority for regarding this plant as a narcotic poison.

*Bladder-podded Lathyrus* (Lathyrus *cicera*).—According to *Divernoi* the seeds of this plant possess poisonous properties similar to those of the officinal lentil.

Peganum *harmela* is arranged with the narcotics by Plenck.

*Herb Paris*, (Paris *quadrifolia*,) produces vomiting and spasms.

*Saffron* (Crocus *sativus*).—Saffron has been regarded by some physicians as a narcotic poison. Our author's experiments prove, that its action upon dogs is very slow; it, however, ultimately proved fatal, both when taken into the stomach and when applied to a wound of the thigh.

*Of Azotic Gas* (Gas *azote*).—This gas is known from other gases by the following properties:

"It is colourless, inodorous, and transparent, and has a specific gravity of 0.96913. It cannot support combustion; does not redden infusion of litmus; is insoluble in water, and does not render lime-water turbid."

Besides stating its effect in producing asphyxia when animals are immersed in it, an experiment of *Nysten*'s is detailed, from which that author concludes, that, when injected into the jugular vein, azotic gas acts as a sedative upon the vitality of the heart, independent of any mechanical effect it may also exert upon that organ.

*Of Protoxide of Azote* (oxidule d'azote).—The following are its characteristics:

"This gas is invisible and inodorous; it has a sweetish taste; and a specific gravity of 1.3693. It is soluble in water; and supports combustion so well, that on instantly immersing in it a taper which has been blown out, it is re-lighted, and burns with a brilliant flame, the gas being in this case decomposed, and the azote set free."

The effects of this gas on the animal œconomy appears to have been different on the different individuals who have respired it. After quoting the descriptions of *Davy*, *Proust*, and *Psaff*, M. Orfila describes its effects on his own person. The protoxide which he employed was perfectly pure, and he was soon obliged to suspend the experiment. The respiration of it produced

"vertigo, an inexpressible uneasiness, and an ardent heat in the chest; which brought on a syncope that continued for six minutes."—p. 200.

The experiments of *M. Nysten* prove, that it produces nearly the same effects when it is injected into the veins of an animal.

Having finished the examination of the effects of individual

narcotics, our author next describes the symptoms general to this class of poisons, whether the substances be applied to the cellular tissue, taken into the stomach, or injected into the veins.

"These symptoms may be reduced to the following:—stupor, heaviness, weight of the head, a great desire of sleeping, which at length cannot be overcome; vertigo, a kind of inebriety, furious or amusing (gai) delirium; sometimes pain: convulsions more or less strong in every part of the body; paralysis of the posterior extremities; dilatation of the pupil; diminished sensibility of the organs of sense, as if apoplectic; the pulse frequent, sometimes slow, but generally at first full and strong; respiration nearly natural, although sometimes a little accelerated; nausea and vomiting, particularly when the poison has been applied to the cellular tissue, or exhibited as an enema: by degrees the nervous symptoms increase, and the animal dies. Death is very quickly occasioned, when the poison has been injected into the veins; less so when it has been applied to the cellular tissue; and comparatively slow when it has been taken into the stomach."—p. 201.

With regard to "the *treatment of cases of poisoning by narcotics*," our author first examines the virtues of the various substances, which have been regarded as antidotes, and then details the measures that ought to be adopted in these cases. The antidotes are thus classed:

"1°. Vinegar and the vegetable acids; 2°. The infusion and decoction of coffee; 3°. The solution of chlorine in water (liquid oxymuriatic acid); 4°. Camphor; 5°. Water and emollient potions; 6°. Blood-letting."

1°. *Du Vinaigre et des Acides Végétaux.*—Contrary to the received opinion that vinegar and the vegetable acids are counterpoisons of opium, our author concludes, from the results of a series of experiments upon dogs, that "these acids aggravate the symptoms of poisoning by opium when the poison has not been rejected by vomiting." In comparing the effects of opium or its extracts, when taken alone or conjoined with vinegar, it also appears,

"1°. That in the first case, the symptoms of poisoning are more slowly manifested; 2°. That they are in general much less violent; 3°. That the fatal event is always longer of taking place; and, 4°. that they are almost never followed by inflammation of the stomach; whilst with vinegar, particularly if it be a little concentrated, this is always the result."

It is remarkable, however, that if the poison has been vomited, vinegar and the vegetable acids possess the property "of diminishing the symptoms of the poison, and even altogether overcoming them;"—a conclusion which M. Orfila has, also, drawn from the experiments upon dogs. As far as these experiments go, the conclusions must be admitted: but we would

prefer one fact, demonstrative of a similar result on the human body, to a hundred experiments upon the lower animals.

2°. *De l'*Infusum *et du* Decoctum *de Café.*—From four experiments made with each of these preparations, upon dogs, M. Orfila concludes,

" 1°. The infusion and decoction of coffee cannot be regarded as counterpoisons of opium, because they do not possess the power of decomposing it in the stomach, or at least of changing it into an inert substance; 2°. That either preparation, however, when introduced into the stomach in combination with opium, does not, like vinegar, increase the deleterious effect of the poison; aud, consequently, there is no danger in employing it in a case in which the opium has not been vomited, whilst there would be great danger in exhibiting vinegar under similar circumstances; 3°. That well prepared *infusion* of coffee, taken in frequently-repeated doses, speedily diminishes the effects of poisoning by opium, and may even altogether overcome them."

The infusion employed in our author's experiments was prepared by pouring from eighteen to twenty ounces of boiling water upon from seven to eight ounces of good coffee reduced to a fine powder. No formula is given for preparing the decoction.

3°. *Du Chlore dissous dans l'eau (Acide Muriatique Oxigéné liquide).*—M. Orfila observes, that admitting the truth of the assertion that chlorine diminishes the poisonous action of opium, it could only result from the facility with which that substance decomposes certain animal and vegetable bodies, by attracting their hydrogen: and hence it might, by such a decomposition of the opium, produce a substance incapable of exerting any hurtful influence on the animal œconomy. With the view, therefore, of determining this important fact, he instituted several experiments upon dogs, from the results of which he infers, that chlorine, in such a state of concentration as would enable it to decompose opium in the stomach, may itself be regarded as an acrid poison; and cannot, therefore, be employed as an antidote of that poison; and that, in its diluted state, it does not prevent the deleterious symptoms from taking place. When the opium has been rejected by vomiting, the operation of chlorine is similar to that of vinegar; but it possesses no particular advantages over that vegetable acid.

4°. *Du Camphore.*—Although several writers have regarded camphor as a counter-poison of opium, yet, the experiments of M. Orfila enable him to state, that it neither decomposes the opium, nor retards its action as a poison, and therefore cannot be regarded as an antidote.

5°. *De l'Eau et des Poisons Mucilagineuses.*—The attention of our author was particularly directed to the examination of the effects of these substances, from an assertion of M. Porta, an Italian physician, "that by means of cold water administered as drink, and in the form of glyster, and applied externally to the lower part of the abdomen," he cured a lady who had been poisoned by accidentally taking a decoction of three ounces of opium. His experiments upon dogs rendered it evident that,

"1°. The beneficial effects of acidulated beverages do not depend on the water they contain; 2°. That this liquid taken into the stomach with opium facilitates its absorption by dissolving it, and consequently that it ought not to be freely taken by persons poisoned with that substance."

In a note upon this passage, our author observes, that it is still more dangerous to employ water acidulated by vinegar, inasmuch as this mixture is a better solvent of opium than pure water, and consequently so much the more promotes its absorption.

6°. *De la Saignée.*—*Tissot* was of opinion that persons poisoned by opium should be treated as if labouring under sanguineous apoplexy; and many practitioners having remarked, that opium acts with less energy, when administered to those who have lost a great quantity of blood, M. Orfila was induced to prove the truth of these observations by experiments, which enabled him to deduce the following conclusions:

"1°. That blood-letting does not aggravate the symptoms of poisoning by opium, nor accelerates the fatal event; 2°. That it appears to be useful in some circumstances, and has even appeared to have saved some animals who might otherwise have perished; 3°. That it ought to be resorted to in the cases of robust and plethoric individuals submitted to the influence of opium; 4°. That it is preferable to open the jugular rather than any other vein."

Having finished the examination of these supposed counter-poisons, M. Orfila next proceeds to point out the plan which a practitioner ought to pursue, when called to a case of poisoning by opium. In the first place, the stomach should be evacuated by means either of tartar emetic, sulphate of zinc, or sulphate of copper, in sufficient but not too strong doses; and, adds our author,

"If these means be insufficient for inducing vomiting, and the fact of the patient having taken a very strong dose of opium be accurately ascertained, two grains of tartar emetic dissolved in two ounces of water may be injected into the veins:"

a practice which, however plausible it may appear in theory, we certainly would not hastily adopt. The emetic substances

should not be dissolved in a great quantity of water, nor the stomach charged with much mucilaginous or acid, or even aqueous fluids. After the expulsion of the poisonous substance, blood should be drawn from the jugular vein, and repeated according to the temperament of the patient; and, afterwards, water acidulated with vinegar, lemon-juice, tartaric acid, and a strong hot infusion of coffee alternately administered. These fluids should be given in small doses, and repeated every ten minutes. Injections with camphor should also be exhibited, the bed of the patient warmed, and the arms and legs briskly rubbed: but if it be supposed that the opium have passed into the great intestines, recourse should be had to purgative glysters.

As the greater number of M. Orfila's results have been drawn from experiments on dogs, he thinks it necessary to state it as his opinion, that the difference between the economy of these animals and that of men is much less than has been generally supposed; and adds,

"*que cette différence est nulle par rapport à la nature des symptômes que les poisons developpent, et à la manière dont ils doivent être combattus; qu'elle existe seulement dans les doses nécessaires pour porter la maladie au même degré, dans l'influence du moral, et dans la force relative des animaux, circonstances qui ne peuvent influer que sur l'intensité des symptômes et sur la durée de la maladie.*"—p. 229.

Cases of poisoning by henbane and the other vegetable narcotics, require the same kind of treatment as those by opium; but this does not apply to *prussic acid*; the most powerful remedies for which are oil of turpentine, and other stimulants capable of rousing the sensibility and contractility of the system; but these should not be administered until after the poison has been evacuated by a powerful emetic.

*(To be continued.)*

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# *PART III.*

## SELECTIONS.

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I.—*Some Observations on the Bill of the Toucan.* By Thomas Stewart Trail, M.D.

"All systematic authors have described the bill of the genus Ramphastos as *hollow*. The Linnæan character even begins, "*Rostrum maximum inane*," &c.; and Buffon has eloquently enlarged on the supposed error, or oversight of Nature, in furnishing so small a bird with a bill so monstrous and use-

less. My friend Charles Waterton, Esq. who has lately returned from the interior of Guyana, had observed, that when a portion of the bill of a Toucan is shot away, the remainder bleeds profusely; and on immersing the bill of a recently killed bird in hot water, he was enabled to detach from the exterior covering of the bill a horny substance, which filled its whole cavity, consisting of a delicate net-work of bony matter in the interior, surrounded by thin plates of the same material. On these bony partitions a great number of blood-vessels are distinctly ramified in the living animal. The gentleman favoured me with a specimen thus prepared; in carefully examining which, I found that the nostrils conducted to the internal cells of the substance within the upper mandible. From this observation, and the great vascularity of the part, I concluded that the bill is *not* an useless incumbrance, as Buffon rashly conjectured; but that it is an admirable contrivance of Nature to increase the delicacy of the organ of smell, in a species whose residence and habits require great nicety in that sense. As the animal is incapable of either tearing or bruising its food, it necessarily must feed on small substances. Its aliment is said chiefly to consist of small fruits or seeds; and for readily attaining these in the wilds of almost impenetrable forests, an acute organ of smell is no doubt requisite. Instead, then, of regarding the bill of the Toucan as an useless load, I am disposed to consider it as an instance of that wisdom and contrivance which attentive observation every where discovers in the works of Nature."—*Transactions of the Linnæan Society of London*, vol. xii. p. 288.

II.—*Some Observations on the Sea Long-worm of Borlase*, Gordius marinus *of Montagu*. By the Rev. Hugh Davies, F.L.S.

"As the concise definition of the genus *Gordius*, in the *Systema Naturæ*, does by no means include the characters of this very extraordinary animal, I deem it necessary to give the following more comprehensive one of it under the other name which has been bestowed on it.

"Linkus longissimus. *Sowerby's Brit. Misc. p.* 15. *t.* viii.

"*Black Line-worm.*

"Corpus lineare, lævissimum, longissimum, mirandum in modum exertile et retractile.

"Caput antice emarginatum, proboscidem cylindrico-clavatam exserens.

"Os inferum, lineare, longitudinale.

"Oculi nulli.

"This is the *Gordius marinus* of Mr. Montagu, *Trans. Linn. Soc.* vii. *p.* 72; and *Brit. Zool. ed.* 1812, iv. p. 74; but not *Gordius Marinus* of Linnæus.

"I laid a perfect specimen of this very wonderful creature in its own element in the largest dish I have, with a design to observe its habits or manners.

"It partook in a great measure of the nature of the leech, and seemed in some degree amphibious; as it frequently, in part, left the water, and, to the length of a foot or two, or more, extended itself along the edge of the dish, and the table on which the dish was placed. At other times, particularly in the day-time, it was compactly collected together in a heap, and perfectly still, unless the dish or table was touched, of which it seemed very sensible. This it indicated by a vibratory motion of its whole mass, and retracting the head and forepart, which were generally somewhat extended. In the night I always found it coiled in a more lax and diffuse manner, covering nearly the whole dish; but on the approach of a candle it seemed affected, and inclined to contract itself; so that, although I could not see that it had eyes, I evidently discerned that it was very sensible of light. It frequently by morning assumed somewhat of a spiral or screw-like form; and on one morning in particular I was highly gratified in finding it almost perfectly and closely spiral from end to end. I was forcibly struck with this appearance, as it seemed to suggest to me the solution of a difficulty which perplexed me much, concerning the manner how such a wonderfully soft, delicate, and seemingly unmanageable length of body could possibly move itself from one place to another. But from the moment when I observed this, I became perfectly at ease with regard to that particular, being convinced that this must be the state which the creature assumes when disposed to change its station; not only as thus it is contracted, with regard to length, into the most compact size which its make is susceptible of, but likewise that, when so modified, every spire or volution, by a distinct impulse exerted in an appropriate manner, will assist in the act of progression, and of shifting forward the whole of its amazing length at nearly the same instant.

"When I took it up at the sea-side, collecting such an immense length in a confused manner into the confined space of an oyster-shell, (a very large one indeed,) I thought it had been almost impossible to have unravelled it; but it is astonishing to think how readily it was disentangled, owing to the extraordinary profusion of mucus which Nature has provided it with, doubtless for that purpose.

"It is impossible to make a guess at the length of it when alive, on account of its constantly extending and contracting itself when touched, and that with such ease as almost to exceed belief. I once observed a part of the fore end extended

to a length between two and three feet, along the margin of the dish and the table, which part, on the animal being disturbed, was in a short time contracted, so as not to exceed so many inches; and as I assert that, when it was thus extended, it was full three times the size in diameter which I had seen it of on some other occasion, I may well say that it is capable of extending itself, or of being extended, without any inconvenience, to twenty-five or thirty times the length that it is of at another time.

"It varies very considerably in colour as it contracts or extends itself, which is from a dusky to a reddish-brown; but it has, when placed in a strong light, especially in sun-shine, a gloss of a fine rich purple all over; when most contracted, it appears nearly black.

"Having thus attended to this remarkable animal for a fortnight, giving it daily a fresh supply of sea-water, I put it into a bottle, which, by the bye, though the bottle was wide-mouthed, I effected with no little trouble, owing to its facility of extending and contracting itself, and likewise its being so slippery from the quantity of mucus with which it abounds. When, however, this was done, I poured on it some spirits; it was convulsed, and greatly contracted with regard to length, and consequently much enlarged in thickness, though neither nearly to that degree which I had often observed when it was alive; and in an instant, to my great surprise, it projected, from the emarginate part of the front, a proboscis which was eight inches in length. It is very strange, that during the space of time above stated, and the various treatment which the creature had experienced, as well as the different attitudes and states I had seen it in, it never in the least exhibited this part of itself till in its dying convulsion.

"It being, as I have before observed, impossible while the animal was alive to make any reasonable conjecture as to the length and breadth of it, I took it out of the bottle, and, on measuring it, found it full *two-and-twenty feet* long, exclusive of the proboscis.

"Now, after the various and repeated observations which I have made, I give it as my firm opinion, that I speak within bounds when I say the animal, when alive, might have been extended to four times, at least, its length when dead. I therefore look on what Mr. Sowerby gives, on the authority of the fishermen at Newhaven, to be by no means improbable, viz. that this most astonishing creature may have been known to be susceptible of being drawn to the length of *twelve fathoms;* or, according to the account of the fishermen on the coast of Devonshire, to Mr. Montagu, to *thirty yards* or *fifteen fathoms*. In-

deed Mr. Montagu's own account, of one of the length of *eight feet* when alive, being reduced to *one foot* when immersed in spirits, does more than support my opinion.

"This subject and another specimen were found beneath the Green, near Beaumares, at the time of spring-tides, in the month of March 1812."—*Ibid.* p. 292.

III.—*On the Effects of a Paralytic Stroke upon the Powers of Adjustment of the Eyes to near Distances.* By Sir Everard Home, Bart. V.P.R.S.M.R.I. &c.

"There are no facts upon record which I am acquainted with that relate to the effects of injuries to the brain on the powers of adjustment of the eye. I have, therefore, brought forward the following with a view to draw the attention of physiologists to this inquiry; and the numerous cases of paralytic affections which occur afford ample opportunity of making observations on this subject.

"A gentleman had an apoplectic fit in the fifty-third year of his age. He remained in a comatose state for four days. In three weeks he could distinguish his attendants so as to know them. He was completely paralytic on the right side, the eye-lids of the right eye closed, the right corner of the mouth drawn up. He lost his speech, and did not see with the left eye, although its appearance was natural. His hearing and taste good. In three months he was able to walk for two hours without resting. His face had recovered its natural appearance, except that the upper eye-lid of the right eye was not fully open. Near objects were indistinct, and he was unable to read; but a pin upon the carpet at the distance of ten feet he saw, and pointed to it for some time before any of his attendants could distinguish it, although they wanted one for his use. This led him to inquire of his surgeon, Mr. Cave, who is a pupil of mine, the reason of his not being able to read the newspaper, when he saw so small an object as a pin at that distance. Mr. Cave mentioned the circumstance to me; I stated that this patient had lost the power of adjusting his eyes to near distances, and begged of him to try whether this was the case with one or both eyes.

"Experiments of this kind were made on each eye separately, placing the newspaper before one, and binding up the other; the paper was brought close, then further off; but the outlines of the print were indistinct whichever eye was employed."—*Journal of Science and the Arts*, No. I. p. 86.

# PART IV.

## FOREIGN MEDICAL SCIENCE AND LITERATURE.

### PRACTICE OF MEDICINE.

I.—Observations upon the efficacy of the Vapour-Bath in cases of Dropsy, by Dr. *Weber*, of Pirmasens.

"In the first years of his practice, Dr. *Weber* experienced great difficulties in combating dropsy. He lost four of his patients, notwithstanding his having treated them according to every rule of the art. In the treatment of a fifth patient he succeeded by using the vapour bath; which produced, not only in this case, but also in three succeeding cases, the most beneficial effects. The description of those cases, Dr. *Weber* thinks, will put the efficacy of this remedy in its proper light.

Case I.

"A. B. a youth 19 years of age (who, except having the usual diseases of infancy, had never been attacked by any sickness), after a powerful exertion in the fatiguing labours of the field during the preceding summer, complained, in the autumn of 1804, of an uncommon heaviness and lassitude in all his limbs, and entire want of appetite; which at length obliged him to keep his bed. A surgeon of the place treated him after the emetico-laxative method; under which, however, the patient became worse; and on the fourteenth day after the first visit, dropsy developed itself. Under these circumstances my assistance was requested.

"I found the abdomen, the face, and the feet, swelled, although not to a very high degree; the pulse full, but scarcely accelerated; the tongue clean; and the breathing regular. The patient complained of want of appetite and sleep, and of great debility. As the evacuations from the laxatives had ceased, and the urine was voided very scantily, I prescribed the following:

℞. Sach. alb. ʒj.
Salis Tartari ℥a.
Cort. Cinn. opt. gr. iv.
Rad. Scillæ leniter sicc. gr. iv.—M. dentur doses tales xviij. Sig. One powder to be given every three hours.

His diet was ordered to be stong broth and beer-soup, with the yolk of eggs; his beverage wine, alternately with the following tea:

℞. Hb. Menthæ pip. Hb. Melissæ,
Hb. Chæref. Hb. Petrol. āā ℥s.
Seminum Fœniculi ʒij. contunde simul. ut. fi. spe-

cies; Sig. A heaped table-spoonful to be infused with three pints of water; and the whole taken in tea-cupfuls, in the course of the day.

A seeming amendment took place in a few days; the appetite and sleep were improved; the urine passed in larger quantities; and the swelling of the face and feet decreased. I repeated the powders, and ordered the tonic regimen to be continued.

"On the tenth day after my first visit, from causes which I have never been able to discover, the swelling of the abdomen and the feet again considerably increased; and that of the face to such a degree, that the patient could scarcely open his eyes. I therefore added bark and digitalis purpura to the above remedies, and ordered the abdomen and soles of the feet to be rubbed with the following

℞ Spiritus Vini Camph. ℥ ß
Tincturæ Op. Eckard,
Tincturæ Cantharid. ā ā ʒij. M.

The swelling of the abdomen and feet nevertheless increased; and the abdomen, the lower extremities, the scrotum, and penis, were soon filled with water, the breast only remaining free. The pulse was pretty regular. The patient felt neither heat nor thirst, voided but little urine, and commonly had a stool every two days. Under these circumstances, as the patient had laboured under the dropsy for already more than two months, and the tonic and diuretic remedies had produced no effect, except in the first days of the disense, I proposed tapping the abdomen; but the patient declared he would submit to every other method, but not to such an operation.

"Upon mature consideration of the case, I suggested the trying of the vapour bath. For this purpose a sufficient quantity of boiling water was poured into a large tub, into which seven or nine handfuls of ants, with the sand and other particles in the state they were taken from the field, were thrown; and the patient, covered with sheets, placed on a stool over the steaming fluid, so that his whole body, the head only excepted, was exposed to the hot vapour. The process was continued for a quarter of an hour, when the water ran down in streams from the body. The patient was then wiped dry, put to bed, and a cup of elder tea, with some drachms of spir. mindereri were given him, by which means an equal sweating over the whole body was procured. The following prescription was also administered:

℞ Rad. Scillæ leniter Sicc.
Camph. ā ā ʒj.
Aloes Succotr. ʒss.
Opii Puriss. gr. ij.
Bals. Peruv. q. s. ut fiant Pil. lxxvi.

From three to five pills to be taken every three hours.

"The vapour bathing was repeated every evening. After the fourth bath, the swelling in all parts of the body had very considerably subsided; the face, scrotum, and penis were entirely free, and the abdomen and lower extremities about half diminished. The urine was voided more copiously, and he had commonly two soft stools every day. The bath having been continued for seven days successively, it was now omitted every third day. The swelling daily disappeared, and after three weeks, reckoning from the first bath, the patient was completely cured. I finished, by prescribing steel and bitter remedies, and the patient to this day enjoys a vigorous state of health."

CASE II.

"C. P. a peasant's wife, was the mother of six children, and, except an obstinate intermittent from which she had suffered several months in her younger years, had never been attacked by any serious sickness. Her menses ceased in her forty-seventh year, which was in the beginning of the Spring 1805, when she was seized with dropsy of the abdomen. Having laboured under this complaint ten weeks, and taken every thing administered by all the quacks and mountebanks travelling the country; she at last applied to me for advice.

"I found the whole abdomen, and the legs up to the knees, filled with water. She had no fever, her pulse was very small and weak; she had a dislike to food, and her stools were not frequent but watery. I prescribed the following.

℞ Pulv. Rad. Scillæ. Pulv. Aloes Succot. ā ā ʒj.
Terebint. Venet. Ext. Gent. Rubr. ā ā ʒiij.
Extr. Hyoscyam. ʒj.—M. Ft. Pil. gr. ij. Consp. Pulv. Cinn.

Sig. From five to eight pills to be taken every three hours.

℞ Hb. Menth. Pip.
Hb. Salviæ. Summit. Millessæ.
Rad. Caryoph. ā ā ℥ ß—M. F. species.

Sig. A heaped table spoonful to be infused in three pints of boiling water, and a tea-cupful taken after every dose of the pills.

"Her regimen was ordered to consist of broth, rice, Scotch barley, yolks of eggs, wine. and acorn coffee. The patient having taken about one-half of the above medicines, combined with the regimen just mentioned, her stools acquired more consistency, the urine flowed more copiously; and in the course of five weeks, during which time the pills were repeated, she was convalescent, when I completed the cure by bitter remedies.

"About seven weeks afterwards, however, having too soon, and contrary to my advice, left off the corroborating regimen,

and returned to her accustomed rustic fare, she experienced a relapse. I directly had recourse again to my former remedies, the pills and aromatic herb tea, but they did not produce the same good effect. I therefore prescribed the vapour bath of ants, in the same manner as in the first case, and which I would have had recourse to directly, if I had not partly intended to keep it in reserve as a very powerful remedy, resolving purposely to make another trial with the other diuretic medicines. Internally I ordered the former pills, the aromatic herb tea, and the tinctura digitalis ætherea, (*Pharm. Boruss.*) of which from 25 to 40 drops were taken three times a day in wine.

"The bathing soon produced profused sweats, copious discharges of urine; the swelling of the abdomen and lower extremities subsided; and after the 11th bath, a complete cure was established. I continued, however, the use of the herb tea for some time longer, and finished with the following powder:

℞. Limat. Mart. puriss. ℥ß.
Sach. alb. ℥jß.
Rad. Cal. arom. ʒvj.
Cort. Cinn. ʒj.—M.

A tea-spoonful to be taken morning, noon, and night.

### Case III.

"C. R. a strong lively girl, four years of age, had been vaccinated in her second year; but in December 1805 she was seized with the scarlatina, which in that year had become epidemical in Pirmasens. The disorder disappeared in the course of nine days; and the little patient recovered her appetite, slept quietly, and grew more lively every day.

"On the seventh day, however, after her recovery, having caught cold, she was seized with a dry cough, attended with heat and thirst. To combat this attack of catarrh, I prescribed the following

℞ Aquæ Fœnic. ℥ß.
Syr. Seneg.
Oxym. Scillæ. āā ℥j.—M.

Two tea-spoonsful to be taken every hour and a half.

The beverage consisted of barley gruel, and an infusion of althæa and liquorice root.

"The violence of the cough abated, and a phlegm-like expectoration succeeded. In five days the feet, abdomen, and face began to swell, when I prescribed the following

℞ Petrosel, ℥j.
Terebint. Venet. s. q. vit. ovi. Sol. ℈jx.
Scillæ, ʒj.
Oxym. ejusdem, ʒvj.—M.

A tea-spoonful, and gradually more, to be taken every hour and a half, alternately with the still remaining medicine.

"The cough was soon nearly entirely gone, and only occurred now and then, with an inconsiderable expectoration: on the other hand, the fever attending the cough at the beginning, and the swelling, were daily increasing. On the seventh day she was much worse, when I resolved upon applying the vapour bath: but, instead of the ants, I substituted the following ingredients:

℞ Hb. Absinth. Hb. Origan vulg. āā ℥ß.
Flor. Chamæm. ʒvj. — M. Ft. species. Dentur doses tales No. vj.; which quantity was each time thrown into the boiling water, and the patient exposed to the vapour of it for fifteen minutes.

I also ordered the following

℞ Baccar. Juniperi, ℥j.
Terebinth. Venet. s. q. vit. ovi. Sol. ℈j.
Tincturæ Digit. Æther (Pharm Boruss.) ℈ij.
Oxym. Scillæ ʒvj.—M.
A large tea-spoonful to be taken every hour and a half.

Broth, barley-gruel, and wine and water, constituted the diet regimen.

"After the third bath the condition of the patient in general was sensibly improved, the swelling had considerably subsided, the fever very much abated, the urine more copiously voided, and a general sweating induced. The patient commonly had a soft stool twice a day. I now changed the medicine in the following manner:

℞ Aquæ Cinn. s. v. ℥j.
Terebinth. Venet. s. q. vit. ovi. Sol. gr. xv.
Tincturæ Digit. ʒß.
Syr. Seneg. ℥ß.—M. d. S.
A tea-spoonful to be taken every two hours.

After the eighth bath the dropsy had entirely disappeared. The patient then took,

℞ Decocti. Cort. Peruv. f℥ij.
Aquæ Cinn. s.
Syr. Menth. āā ʒvj.—M.
Two teaspoonsful every two or three hours.

In about three weeks she was completely restored, and remains well.

### Case IV.

"S. K. a girl fifteen years of age, of a weak constitution, was seized with the scarlatina in January 1806, to such a degree as I never before observed in any patient whatever. Her whole body was as red as a boiled lobster. She was in imminent danger; but I succeeded, notwithstanding, in curing her of this disorder in about a fortnight. On the tenth day after her

recovery, having complete relief, she was attacked by a general anasarca and ascites.

"To give a detailed account of the whole sickness till its complete cure, would be transgressing the limits of a periodical work, as it lasted above five weeks: and the method of cure adopted in this case was similar to the three before described. Suffice it to say, that the most certain observation of all the appearances developed in the progress of the sickness, gives me the fullest conviction that the patient owed her recovery to the application of the vapour bath, of arts in particular. I say this vapour bath in particular, as I also applied very powerful inward remedies, such as barts, magnesia, digitalis, squill, turpentine, and hyoscyamus. The patient took nineteen vapour baths, and is quite recovered.

"Dr. Weber afterwards had only one case of the dropsy where the application of the vapour bath turned out unsuccessful. The subject of it was a girl of eighteen months, of a very weak constitution, who by her wet nurse had been infected with the itch, and this complaint being communicated to the whole family, the child laboured under it for above three months. Some time after its recovery from the itch, the child was seized with dropsy, and died."

II.—In a paper on Cholera Morbus, read at the Société de Medecine de Paris, by M. *Gallereux*, of Tonnere, the following is described as a remedy of very great efficacy in that disease:

℞. Infusi florum Papaveris errat.
Aquæ florum aurantii, ℥j.
Ipecacuanhæ, gr. xviij.
Etheris Sulphurici, ♏x.—M. To be taken in doses of a table-spoonful repeated every half hour, drinking freely after each dose any demulcent fluid acidulated with syrup of vinegar.

M. Gallereux states, that his father, who is the inventor of the above formula, having been struck with the futility of the method hitherto common in France, of treating *Cholera Morbus* with simple diluents only, so as to dilute the bile by their quantity, and thus render it less acrid, conceived the idea of combining the operation of evacuants with narcotics, with the view of allaying the inverted action of the stomach, and the increased peristaltic motion of the intestines; at the same time that both are freed from the acrid bile which loads them. In this he completely succeeded; and the following cases are detailed as proofs of the efficacy of his method:

"About the end of July 1809," says M. *Gallereux*, "my brother, a surgeon, was suddenly and violently attacked by cholera morbus. The vomiting was almost unceasing, the

diarrhœa copious, the limbs were affected with cramps, and the whole body at intervals convulsed: the pulse was small, quick, and hard; the extremities were cold; and the degree of anguish which he suffered inexpressible. My father gave him the potion by spoonfuls; and, in the intervals, some glassfuls of a drink acidulated with syrup of gooseberries. After the administration of the third spoonful, almost all the unfavourable symptoms ceased; and he fell into a tranquil sleep. A good night succeeded; next morning he felt himself quite well; and in eight days he had recovered his usual robustness.

"A labourer in a vineyard, named *Desjardins*, was attacked, in the end of September, with cholera morbus. My brother, who was called to attend him, eight hours after the commencement of the disease, administered to him the potion. This patient was also restored, although the alternation of vomiting and purging were of the most violent description, his pulse scarcely to be felt, and his extremities cold.

"A female of the name of *Pinson*, at Chichée, was taken ill about the end of August 1815. Being called to her assistance, I found her vomiting a great quantity of green bile, with a frequent inclination for stools, attended with the most violent colic, and excruciating pains in the calves of the legs. The pulse was small, and the extremities cold, but the intellects entire. The attack was evidently that of cholera morbus; and was the second of this description which the patient had suffered. She took the mixture in spoonfuls every half hour; and after the third dose experienced the greatest relief: the vomitings gradually ceased; and although a copious diarrhœa continued, yet all the other symptoms were allayed before midnight. The patient slept quietly; the pulse filled; the cramps disappeared; the extremities became warm; and next morning she demanded something to eat. Three table-spoonfuls of the syrup of rhubarb were administered in the morning, at noon, and in the evening, for two days; with a drink acidulated with gooseberry jelly *(gelée de groseilles)*, after which she remained in good health.

"In the month of October 1815, a vine-dresser, named *Nicole*, of Fley, was suddenly attacked with vomiting when working at the wine-press, accompanied with severe colic and a constant desire for stools. On being called to see him, and finding the disease to be cholera morbus, I administered the potion. The result was the same as in the preceding cases; and I finished the treatment by ordering him to take several table-spoonfuls of syrup of rhubarb for a couple of days.

"From the result of these cases, I strongly recommend this mode of treating cholera morbus, whether in the commencement or the decline of the attack: and have only further

VENTRICULI, SITUS ERRORE, DEFORMITAS;

AUTOPSIA CADAVERICA REGALI GADIUM NOSOCOMIO PATEFACTA.

OB IPSIUSMET ICTUM VULNERE LATERE FACTO.



Bragg sc.

*For the London Medical Repository Vol 5. p. 422.*

to observe, that the dose of ipecacuanha may be varied from six to eighteen grains, according to the age and the constitution of the patient; but, in general, it ought neither to be more nor less."

PHYSIOLOGY.

III.—We are favoured, by Dr. *Martinez Cavallero*, of *Cadiz*, with the following case, which is regarded as a natural mal-position of the stomach, and has excited much attention in Spain. Dr. C. having given us a coloured plate of the appearances which dissection afforded, nearly as large as the natural parts; although very rudely executed, we think it our duty to present our readers with a reduced outline of it, and a translation of the Latin explanation with which it was accompanied.

"On the first of June, 1815, Joseph Hidalgo, a cadet (tirunculus) of the king's ship the Asia, born at Aparicio in the kingdom of Mexico, twenty-four years of age, of a robust form and bilio-sanguine temperament, was brought to the Royal Hospital of Cadiz, with a wound of about an inch in length between the seventh and eighth ribs, having been run through the body with a sharp cutting weapon thrust upwards, and from left to right. Some thick, ash-coloured, fluid matter was oozing from it; which, and the pulse being small, hard, and quick, the respiration accelerated, and anxiety present, with nausea, and vomiting on deglutition, led the professional attendants to believe that the stomach was injured, although the situation and direction of the wound rather argued against that opinion. The method of cure, however, was directed by this indication. Blood-letting produced a momentary relief; but, the symptoms again increasing, he died during the night.

"On the following day the body was opened by Dr. Joseph Benjumeda, Anatomist to the Royal Hospital. It measured rather more than six feet two inches (74 pollicibus longior erat.) in length, was robust and brawny. On opening the thorax the following appearances were observed. (See the plate.) The left cavity was considerably larger than the right: A, the trachea divided into the bronchiæ B, B, passing into the lungs; E, the mediastinum inclined towards the right side, whilst the cavity which was diminished by the great bulk and convexity of the liver being pressed up, contained the auricle and ventricle of the right side; and the lung C, very small and hollowed on the interior surface. The left, D, was so small that, anteriorly, it merely touched the lower edge of the third rib, and posteriorly terminated between the fourth and fifth ribs. The hollow of its base was greater from the convexity of the stomach, and divided obliquely in a singular manner; it was only one half its usual density. F, the heart, situated per-

pendicularly behind the sternum, was not supported upon the diaphragm, nor was the mediastinum adhering to it, but floating about half a finger's breadth from it, whilst the heart was suspended solely by the great vessels. G, G, the œsophagus, its pectoral part seen above the diaphragm, and its abdominal hidden by the common lobulus of the liver.

"The stomach, the most singular object in this examination, was divided in the two regions: I, the pectoral portion, which hid the pericardium, and filled the whole left cavity of the thorax, was a membranous sac, larger in bulk, but of a pyriform shape resembling the urinary bladder. It was obliquely situated, and the fundus bipartite, of which one part was contracted in the abdomen; whilst the other, the fundus for example, remained saciform above the particular cavity of the diaphragm. Its coats were very thick, besides being increased by the pleura, where it touched the other viscera, to which it intimately adhered. The muscular fibres were in a singular direction, and of different colours. The wound I, is delineated between the two ribs which are the seventh and eighth. The abdominal portion L, situated in the epigastrium, was smaller, irregular, and resembled a little stomach; indeed, it exhibited two curvatures: and the omentum Q, separated an inch only from the cardia H, by the pylorus K, and the duodenum L. This portion was thicker and more rugose than the pectoral, with some of the folds of the mucous membrane running to the summit of it. The ring as well as the valve adhering to the cardiac orifice, impeded the return of the food into the œsophagus.

"K represents an oval hole, about an inch and a half in diameter, surrounded by a tendonous circle of three lines broad, which pierced the diaphragm M, M, M, and formed the passage for the stomach. That muscle was more convex above, without the phrenic centre, or tendons, or aponeurosis, and fixed by its common connexion. O, the ventral aorta; P, the hepatic artery, the only one produced from it in the first instance; Q, the omentum, or sacculus, four inches long, and three broad; R, the spleen; S, S, portions of the greater pectoral muscles (sterno-humeralium, *Chaussier*), T, T, T, the true or thoracic ribs; B, B, the false or abdominal.

"The publishers of the case conclude by observing, that many other circumstances connected with the structure, situation, figure, &c. of the other viscera, displaying an aberration from the natural state, are omitted; as they mean to reserve these, with some considerations relative to the functions of digestion and respiration, &c. to form the subject of a particular dissertation, after they shall have received the observations of any scientific men who may favour them with their opinions; which they solicit."

IV.—The following dissection of a case of *Scirrhus of the Pylorus*, accompanied with a *tuberculated liver*, is the third of a series of cases of morbid anatomy, read before the Literary and Philosophical Society of New York on the eighth of June 1815, by John W. Francis, M. D. Professor of Materia Medica in the University of the State of New York*. We conceive the case not only interesting in itself, but the accompanying remarks contain several important hints regarding the diagnosis of the early stage of scirrhus of the pylorus; by the further elucidation of which, something may be done for arresting the progress of this hitherto most intractable disease.

"On the morning of Sunday the 4th of June 1815, I was requested, in connexion with Dr. William Handy, a respectable physician of this city, to examine the body of a female, aged thirty-eight years, who had died on the preceding day of a complication of distressing symptoms. On this occasion our attention was necessarily confined principally to the appearances which might be discovered in the abdominal cavity.

"Not the least portion of the omentum was present. The stomach was much smaller than natural, and contained about ten ounces of a dark fluid, intimately mixed with a substance similar to coffee grounds, of a somewhat offensive smell, and seemingly acrid nature; its internal coat presented some slight marks of former inflammatory excitement, and its whole surface was covered with a tenacious, dark coloured mucus. The most important change, however, which was found to have taken place in this viscus, was a scirrhus of the pylorus, which, from all that could be perceived, completely closed the inferior passage of the stomach, about which part, externally, was attached a tuberculated excrescence two inches in length, and half an inch in breadth, and greatly resembling, in its colour, that of a natural pancreas.

"The whole of the small and great intestines manifested a perfectly sound appearance. Some few of the glands on the mesentery were larger and harder than ordinary. The spleen and the pancreatic gland were in a healthy state. It is an undertaking not altogether void of difficulty, to communicate, by words, an exact idea of the great and remarkable changes which the liver had suffered.

"This organ was so much enlarged, that it occupied not only all the right hypocondrium, but also all the epigastric region as low down as the umbilicus, and a very considerable part of the left hypocondriac region: previously to our opening the abdominal parietes, its hardened and irregular surface could

* We have to thank Dr. Francis for his politeness in presenting us with a copy of his dissertation.

be distinctly felt under the integuments covering the parts just noted. Both the convex and concave surface of the liver were vested with *tubera*: there were, probably, about sixty of these bodies on its superior surface; on the inferior surface they were more numerous. They also pervaded the inner surface of the liver, sometimes in a distinct, and at other times in a confluent form. The tubera were all of the same nature, though they varied in size: on the outer surface of the gland they preserved their distinctive form, elevated the peritoneal covering of the liver, and were separately variegated with red vessels: in their colour they much resembled a cream white; at or near the centre they had a little depression, which presented an appearance whiter than elsewhere. In several places, internally, these tubera closely approximated, and seemed to be adhering to each other: the largest of the inner tubera that we noticed, was three and a half inches in diameter, and upon their being dissevered by the knife, a very small quantity of an opake white fluid exuded from them. Upon making various sections, the substance of the liver between these tubera was always found to be less vascular, and its cohesive powers more feeble than natural.

" It deserves to be stated, that, notwithstanding the enlarged and diseased condition of the hepatic organ, the gall bladder was half full of well-formed bile; that there was no effusion of water in the cavity of the abdomen, and that at no time, during a long illness, did the patient labour under jaundice.

" 'I believe,' says Dr. Baillie, 'that the large white tubercle is not so often attended with jaundice and ascites as the other.'

" I shall briefly relate the principal circumstances that seem to throw light on the nature of the preceding case, so far as it has been practicable to obtain an accurate knowledge of them.

" The patient, from her infancy, uniformly possessed great feebleness of constitution, and for the last twenty years of her life was seldom exempt from disease. She was the mother of several living children. The complaint from which she suffered most severely, was an extreme debility of the digestive organs, which caused her to be at all times cautious in the choice of food; and to depend for alimentary support chiefly upon plain broths and milk. She was never in any degree addicted to the use of spirituous or malted liquors.

" The symptoms which distinguished the irritable state of her stomach, were similar to those already mentioned in case the second, though it was only for the last two years that she suffered most remarkably on that account. She often complained of nausea, and frequently ejected her food soon after a meal. Her distress when lying down at night was always ag-

gravated, provided any nourishment had been taken a short time previous; and the pain that gave greatest uneasiness was seated in the *right* side, directly at the inferior orifice of the stomach, and was always aggravated when she laid down upon that side*. The attacks of vomiting sometimes came on very suddenly; and, for several weeks before death, she discharged the contents of the stomach with extreme violence. The functions of the intestinal canal were performed with great regularity until within some few months previous to the termination of her disease.

"In the spring of 1813, she suffered from an acute inflammation of the liver; but this affection seems to have been confounded with the disorder of her stomach, as nothing was particularly done for her relief. During the autumn of the same year, she again laboured under another violent attack of hepatitis. From this period she was at no time relieved from distress in the right hypochondriac region, and other symptoms which pointed out a chronic enlargement of the liver. With the exception of an ineffectual attempt to excite the salivary glands by a few grains of mercury, which attempt was made by one of the several practitioners of medicine under whose care she placed herself at different times, the treatment both of the hepatic and the gastric disorder was exclusively dietetical.

"The preceding facts warrant the deduction, that the temperament of the patient, and the extreme feebleness of her digestive powers, were the primary causes of the organic diseases of the stomach: that repeated attacks of inflammation, and an inert mode of treatment, laid the foundation for the uncommon appearances of the liver. Habitual excess in the use of ardent liquors, and acute inflammation, are generally considered the principal causes of those changes which lead to the formation of tubercles of the liver: but the tubercles thus produced vary materially in their character: those that are the offspring of long indulgence in spirituous drinks, are, perhaps, in a very great number of instances, of comparatively small size, and the natural bulk of the liver itself is, in these cases, diminished: on the other hand, those tubercles that seem to have been the result of inflammatory action, are of a remarkably large size, and often occasion an astonishing increase in the growth of the liver."

* "This symptom, indeed, seems to be eminently deserving of recollection, though it does not occupy a place in any of the medical histories of cases of this disease heretofore recorded. I am inclined to think it will be found to be one of the most prominent circumstances indicating the forming stage of scirrhus of the pylorus, and in this belief I am strengthened by the opinion of one of the most accurate observers and experienced practitioners of the present day, Dr. Samuel Bard, now President of the College of Physicians and Surgeons in the University of the State of New York."

V.—GIESE's *Method of Curing Club Feet in New-born Infants, without the aid of Machines**.

"THE frequent disappointment in the cure of club feet, even by means of the ingenious machines invented by a *Richter* or *Bruenninghausen*, seems chiefly to arise from the dry bandage placed about the foot previous to the application of the machine, not preventing the foot, when thus tied, from returning to its former wry position; as the pressure, which can only be opposed to the perverted exertion of Nature, ought not to be too strong for a new-born infant. It was therefore a happy thought of Dr. Giese's to attempt supplying this defect of the dry bandage by an adhesive plaister, which attempt has been crowned with the most distinguished success. He caused the club feet of a new-born infant, previous to their being put into the bandage, to be fomented in warm water for half an hour, to relax the muscles, tendons, and sinews, which were shortened on the inner side of the foot, and gradually to lengthen them, and thereby occasioning their unduly distended antagonists on the other side to resume their proper contractile power. Directly after the bath, the inner side of these parts was rubbed with fresh hog's lard, whilst the surgeon placed the distorted ossa metatarsi in their proper position. The feet being dried, strips of linen of a sufficient length, and an inch broad, spread with adhesive plaister, were laid on in the following manner: the beginning of the first strip was placed under the great toe, passing thence to the little toe and under and over the foot by turns, covering each other sideways to the heel, and thence were drawn tight over the whole leg up to the knee. A second strip was introduced under the middle part of the foot in the same direction, with the intention of gradually remedying the turning inward of the feet. A third strip commenced on the inner side of the heel, ran over the upper part of the foot to direct the ossa metatarsi, and bend them inwards to their proper position. Thus the first plaister was fixed to all the parts of the whole foot up to the knee; the second on the back of the first, and the third on that of the second. The many points of contact in a contrary direction were intended gradually to overcome the inclination of the feet to turn inward.

"This attempt completely succeeded. After the first dressing, the feet had assumed a less distorted form, and this mode of treatment being continued for five weeks, the fomentation and unction were laid aside. The bandage was afterwards applied by the mother of the child, and being continued a few months, the malformation of the feet was entirely corrected."

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* *Altenburg Medical Annals, April* 1815.

CHEMISTRY.

VI.—ALTHOUGH the *Gum of the Olive* was much employed by the ancients in diseases of the eyes and of the skin, yet it has altogether been neglected as a medicament by the moderns. It has, however, been lately examined by *M. Paoli*, who has published the result of his investigation in Brugnatelli's Journal*. In giving an abstract of his paper, we do not think it necessary to follow him in his historical researches, but will confine ourselves to his details of the physical and chemical properties of this gum.

*Origin of the Olive-tree Gum.*—" The olive gum of the ancients was procured from both the wild and the cultivated olive-tree, as it exuded from their trunks, in warm countries. At least this is probable, from the testimony of different authors. Mathiolus and others indeed maintain, that the olive-tree of the Red Sea and of Ethiopia differs from ours; but if this were the case, Theophrastus would have noticed it. This opinion however has been adopted by some later authors, and occasioned the belief, that the gum of our olive-trees is different from that which was employed by the ancients, which has prevented its employment in medicine. The olive gum of commerce is supplied by both the wild and cultivated olive-trees, which grow in abundance in the kingdom of Naples, and particularly in the provinces of Calabria, Abruzze, and Pouille; and the gum is called in Italy, the gum of *Lecce*, which is the name of one of the principal towns of the last named province.

" *Physical characters of the gum of the olive.*—This gum is obtained in the form of tears, and sometimes in rather large masses. It is of a reddish-brown colour; and as some parts of it are more polished and less transparent than others, it has, with regard to colour, the appearance of amygdaloid benzoin. It is translucid at the edges, and almost diaphanous throughout in the purest pieces. It is brittle, has a resinous fracture and a fatty appearance; is conchoidal, sometimes with small, and sometimes with large cavities. Heated by friction, it exhales a peculiar odour, and becomes electrified so as to attract light substances. Thrown upon hot iron, it melts, swells, and exhales the agreeable smell of vanilla. It melts also when placed upon hot coals, and inflames. Its specific gravity is 1·298.

" *Chemical properties.*—The smell of olive gum would lead to the suspicion, that it contained benzoic acid; but it does not evolve any of it even when heated. It melts, as has been already observed, upon hot coals, swells and burns with an agreeable smell; and, if kept a long time in fusion, it leaves a

* *Giornale di Fisica, &c. di Brugnatelli, 5° Bim.* 1815.

light coal, spongy, and easily incinerated. The ashes contain chiefly muriates and carbonates of various bases, and do not amount to a hundredth part of the resin employed.

"Triturated with water, this gum quickly precipitates; when the several parts agglutinate, the supernatant liquid is limpid, of a slightly yellow colour, and becomes frothy by agitation; it soon undergoes spontaneous decomposition. The fresh liquor, filtered and evaporated, leaves upon the interior of the vessel, circular traces; and a brown residue is obtained, consisting of oxigenated extractive, mixed with much resin, which becomes soluble in water by means of the extractive, and then passes through the filter. Not more than $\frac{3}{10}$ of this residue, separated from the resinous part, is obtained from a hundred parts of the olive gum.

"After having separated the extractive from this gum, alcohol readily dissolves all the remainder: when cold, it scarcely takes up more than 0·02 of its weight; but it dissolves much more with the assistance of heat, which is again precipitated as the alcohol cools. The alcoholic solution does not redden tincture of turnsol, which distinguishes this substance from the greater part of the known resins.

"Funcke has observed in the resin of the Inula helenium, the property of crystallizing*, which is also possessed by the gum of the olive. It crystallizes by spontaneous evaporation in needles, disposed in the form of rays; but to obtain this, it is necessary that the gum should be deprived of its extractive, as this, while it communicates the property of being soluble in water, takes away that of crystallizing. This crystallizable property has also been observed in the resin of vateria *indica*, in that of the cypresses, and very particularly in that of the aloes; and it is probable, that many resins possess this characteristic.

"The resin of the olive gum is insoluble in fixed oil; but it dissolves very easily in the volatile oils. Potass dissolves it with ease; and the acids precipitate it from this solution without any sensible alteration.

"Nitric acid dissolves this gum with effervescence and the disengagement of nitrous gas; and a substance of a reddish-yellow colour is formed, with a bitter astringent taste, which tinges yellow the skin and other animal substances, precipitates isinglass, and forms a brown precipitate with oxalate of lead. The precipitate formed with the isinglass is soluble in an excess of gelatine, and in the mineral acids, which clarify the fluid rendered turbid by this precipitation. These characteristics are sufficient to prove, that the gum of the olive affords, by the action of nitric acid, in the same manner as indigo and some resinous substances, an artificial tannin, and the bitter of *Wel-*

* *Annales de Chimie*, tom. lxxvi. p. 102.

*ther.* When the gum is treated with sulphuric acid, and then with alcohol and with water, the tannin of Hatchett is obtained.

"The gum of the olive, then, is formed of a peculiar resin and a portion of oxidizable extractive. M. Ferrat* has discovered extractive and resin, besides several other substances, in the leaves of the olive tree. But it must be remarked, that in these leaves the quantity of extractive is much greater than that of the resin: while in the gum, the reverse is the case.

"The extractive principle, in many respects, particularly in the oxygenized state, is analogous to resins; and after being saturated with oxygen in the leaves, and continuing to circulate through the vessels of the plant, it is secreted anew, and resembles the resin in a greater degree, in which state it exudes from the bark.

"The external characters, such as transparency, fracture, electricity by friction, and the mode of melting, entitle this substance to be ranked among the resins; and this opinion is confirmed by the chemical analysis. The small quantity of extractive it contains, prevents it from being placed among the gum-resins; none of the characteristics of which it possesses. It should properly be denominated the *resin of the olive*, as a more appropriate name than that by which it has hitherto been designated."

VII.—*Observations and Experiments upon the Rosacic Acid in the Urine of Man.* By M. Vogel†.

"The analyses of many chemists have proved that the urine of man contains a great number of constant and invariable principles; such as the different phosphates, muriates, a free acid, urea, &c. But it also contains other matters accidentally formed under certain states of the animal economy; such, for example, are the yellow bitter acid, the sugar of diabetes, and the rosacic acid‡.

"M. Proust, in examining the red substance, known by the name of *lateritious sediment*, perceived that it neutralized alkalies; and hence named it *rosacic acid*§. The experiments of Proust have been confirmed and extended by Vauquelin‖.

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* *Bull. de Phar.* tom. iii. p. 433.

† *Journal de Pharmacie*, Janvier 1816.

‡ M. Proust, nevertheless, supposes the rosacic acid always exists in urine. I have never been able to separate it, even when the urine was left in a frigorific mixture, nor after having dropped into it some nitric acid, which, according to Proust, neutralizes the ammonia with which the rosacic acid is combined.

§ *M. Proust's Essay upon Urine, Annales de Chemie*, tom. xxxvi. p. 258.

‖ *Annales du Museum*, tom. xvii. p. 183.

"I have frequently obtained this rose-coloured substance from urine; but I ought to remark that it is never formed before and during fever; and begins only to appear when the crisis is passed.

"I have lately had an opportunity of procuring a great quantity of rosacic acid. Doctor Meyer, who is subject to gout, having passed it during five days, every morning filtered his urine, and transmitted to me the pulverulent residue collected upon the filter. The matter thus collected amounted altogether to 3·50 gros.

EXPERIMENTS.

"Cold water does not dissolve this substance; but boiling water takes up nearly the whole of it. The solution is brownish; and, as it cools, deposits a white powder. The liquid has an odour resembling urine, and reddens strongly the tincture of litmus.

"*Action of Alcohol.*—Boiling alcohol of a specific gravity of 40° of Beaumé's areometer, sensibly dissolved it; but not in such great quantity as boiling water. On pouring off the alcohol, and again repeatedly boiling the residue with fresh quantities of alcohol, the spirit at length was not coloured, and a very pale powder remained, upon which alcohol did not appear to act. After desiccation, this powder was nearly white. With cold nitric acid it formed a strong froth; and when the mixture was evaporated to dryness, crimson-red scales remained, resembling those that form when uric acid is heated with nitric acid.

"The alcohol charged with the acid, being evaporated to dryness, left a red powder unalterable in the air; which I regarded as pure rosacic acid, separated from the uric acid by the alcohol. Upon this purified acid I made the following experiments.

"The rosacic acid dissolved altogether in water; the solution reddened the tincture of litmus, but was not rendered turbid by lime-water, which proved the absence of any phosphoric acid.

"The rosacic acid dissolved without effervescence in concentrated sulphuric acid, producing a rose-coloured solution, which after some time acquired a deep tint. The addition of a little water, however, rendered it colourless, and precipitated a white powder. The same white deposit was produced by the addition of alcohol. This powder is scarcely soluble in water when it is well freed from the sulphuric acid by washing; and it then has all the characteristics of uric acid.

"When rosacic acid is moistened with a few drops only of sulphuric acid, the powder acquires a beautiful red colour. But by adding to the rosacic acid some sulphuric acid diluted

with three parts of water, the powder acquires at first a beautiful red colour; but after some time becomes white; and in this state is analogous to uric acid.

"Fluid sulphurous acid, in which the pulverulent acid is agitated, acquires a lively red colour, which continues for a long time: and when rosacic acid, which has been in contact with sulphurous acid, is dried, it becomes a permanently beautiful carmine-coloured powder.

"When nitric acid at 32° is poured upon rosacic acid, it instantly swells up, and effervesces briskly, extricating nitrous gas. The red powder disappears, and a whitish yellow one is formed. If the fluid be heated to ebullition, the whole is dissolved; and, by a slow evaporation, crimson red scales, perfectly similar to those obtained by treating uric acid by means of nitric acid, are obtained.

"According to Proust, much carbonic acid is disengaged when nitric acid is poured upon this acid.

"Since it is only nitric acid which produces such an effervescence, the disengagement of carbonic acid and nitrous gas may perhaps be attributed to a reciprocal decomposition exerted by the rosacic and the nitric acid upon each other. The simple muriatic acid does not appear to have any sensible action upon the rosacic acid; which remains without losing the intensity of its colour; and it is only some days afterwards that it becomes of a light fawn colour. Oxymuriatic acid discolours the red powder very quickly, and gives it a yellow tint.

"Water charged with sulphuretted hydrogen does not act upon rosacic acid, although they remain together for five days. After a considerable time, however, the red powder altogether disappears, and the fluid acquires a putrid ammoniacal odour.

"When rosacic acid is moistened with a concentrated solution of caustic potass, the powder immediately acquires a fawn-brown colour, and disengages much ammonia. This combination of the acid and potash is soluble in acid. The acids precipitate from the solution a powder of a fawn-yellow hue; and it becomes apparent that the rosacic acid, by combining with the potass, suffers a kind of decomposition; at least, I have not been able to re-produce it, with its primitive red colour, by means of an acid.

"Liquid ammonia, left for some hours in contact with rosacic acid, converts it into a beautiful yellow powder. The ammonia is found in this yellow powder combined into the state of a salt with the rosacic acid, which is more soluble in water than the rosacic acid itself. The rosacic acid is precipitated by any other acid from the aqueous solution of this ammoniacal salt, in the form of a yellow powder.

"When rosacic acid is moistened with a concentrated solution of nitrate of silver, it loses its colour, and after some time assumes a bottle-green hue. Pure uric acid, mixed in a solution of nitrate of silver, assumes, also, after some time, a brownish aspect. The nitrate of mercury and the muriate of tin produce no such effect on rosacic acid.

"*Recapitulation.*—The following are the most marked characters of this acid, and may serve as its distinguishing characteristics:

"1°. Concentrated sulphuric acid converts it into a deep red powder, dissolves it, and then brings it to the state of a white powder, insoluble in water, which possesses all the properties of uric acid.

"2°. Sulphurous acid gives it also a beautiful shade of lively red; which becomes more intense by time in the acid, and is constant and unalterable.

"3°. Nitric acid changes it into uric acid.

"4°. Solution of nitrate of silver poured upon rosacic acid, communicates to it, after some hours, a fawn-brown colour; which, after twenty-four hours, changes to a bottle-green.

"Uric acid undergoes the same change to a certain extent.

"From the abstraction of the colour, and the action of the sulphuric and sulphurous acids, it appears that rosacic acid is not very different from uric acid, and that no great effort of Nature can be requisite for changing the one into the other."

BOTANY.

VIII.—At the sitting of the French Institute, on the 29th of January last, M. Humboldt read an interesting memoir *on the distribution of vegetable forms*, or the very constant numerical relation in which the various families of plants are found under the different zones, and at different heights. Thus, for example, the *graminęæ* constitute in England $\frac{1}{13}$, in France $\frac{1}{18}$, in North America $\frac{1}{10}$, of all the *phanerogamic* plants. The *glumaciæ* are in Germany $\frac{1}{7}$, in France $\frac{1}{8}$, in North America $\frac{1}{8}$, of the *monocotlydonous* and *dicotlydonous* plants. Certain forms, also, are perceptibly more common in passing from the equator to the pole; as the *glumaceæ* and *cruciferæ*; other forms increase towards the equator, as the *rubiaceæ*, the *malvaceæ*, and the *compositæ*; others attain their maximum in the temperate zones, and diminish towards the poles and the equator, as the *labiatæ* and the *amentaceæ*; so that if one sees under any parallel the number of the *leguminosæ*, he may determine by approximation the number of the species of all the *phanerogamia* and other plants.

# PART V.

# MEDICAL AND PHYSICAL INTELLIGENCE.

## I.—SOCIETIES AND LECTURES.

LECTURE V.—*Of Potash and Soda.* By Professor BRANDE, at Apothecaries' Hall, London.

THE nature of the fixed alcalies and their general properties were dwelt upon in the last Lectures: at present, therefore, we have to describe their pharmaceutical preparations, and detail their uses in practical physic.

Pure potash, the potassa fusa and kali purum of the Pharmacopœia, is prepared by the evaporation of a solution of pure potash, obtained by decomposing subcarbonate of potash by lime.

The action of the lime in this experiment was first cleared up by Dr. Black, who discovered the causticity and mildness of the alcalies to depend upon the absence and presence of fixed air or carbonic acid. Before his inquiries, alcalies were supposed to become caustic by absorbing fire, which it was imagined the lime had previously contracted during the process of calcination. The same explanation applies to lime itself; and chalk is converted into lime by the expulsion of carbonic acid during its calcination, or heating in the kiln.

Potash, in the state of potassa fusa, is used only as a caustic external application, for the destruction of parts, which it first kills, and afterwards decomposes, and produces a soap.

The liquor potassæ, which is the aqueous solution of caustic potash, is used in medicine as an antacid and lithontriptic: in the former case, where acidity is generated in consequence of impaired digestion, the liquid potash, though it may allay the immediate symptoms, seldom fails to increase their cause, namely debility of the stomach, and consequent irritation of its secretions; hence tonics, such as bitters and acids, are to be looked to for permanent relief.

As a lithontriptic, liquid potash, is a double source of evil:—1st, whatever weakens the digestive organs aggravates the symptoms; 2dly, by diminishing the natural acidity of the urine, it increases its tendency to deposit certain compounds which it only keeps suspended by virtue of its excess of acid. And, although potash may relieve, therefore, or put a stop to the production of red gravel as long as it agrees with the stomach, it will often increase where it disagrees, and always has a tendency to produce white sand: and where white sand is the original complaint, potash is often inadvertently given, and never fails most seriously to aggravate the disease. Accordingly, many cautions are requisite in exhibiting liquid potash as a lithontriptic. It may often be advantageously united

with bitters, and often with opiates. Perry's solvent is a combination of this kind. But it is by no means probable that any concretion once formed in the urinary bladder should ever have been redissolved. Liquid potash is also used as the means of blending oils with water: it forms emulsions, which furnish a good vehicle for the alcalies and other compatible preparations. This property gave rise to the term soap lees.

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Royal Society.—On Thursday the 21st of March a paper by Sir Everard Home was read, on the mode of action of specific medicines. From experiments already made, it is known that poisonous bodies, whether mineral or vegetable, do not produce their effects upon the body till they are introduced into the circulation: and the effect always follows whenever they are introduced into the circulation. Ipecacuanha injected into the jugular vein produces instant vomiting, and opium immediate drowsiness. We know at present only two specific medicines; namely, mercury for the venereal disease, and the eau medicinale, which is a vinous infusion of colchicum autumnale, for the gout. It is well known that mercury produces its effects only when introduced into the circulation. The author gives an account of several experiments with the eau medicinale on himself and on dogs, which shows that it requires likewise to be introduced into the circulation before it produces its effects.

At the same Meeting part of a paper by Dr. Thomson, on the composition of phosphoric acid, was read. Lavoisier first ascertained that this acid is a compound of two parts of phosphorus by weight, and three parts of oxygen; but there is reason for believing that he over-rated the portion of oxygen. Rose made a set of experiments partly in the same way as Lavoisier had done, and partly by acidifying phosphorus by means of nitric acid. According to him, phosphoric acid is a compound of 100 phosphorus + 114·75 oxygen; but the proportion of oxygen which he found in the acid was too small.

On Thursday the 28th of March Dr. Thomson's paper was finished. The author made many experiments to determine the constituents of phosphoric acid, by acidifying phosphorus by means of nitric acid; but as the results were unsatisfactory, he had recourse to the method of Lavoisier. Small quantities of phosphorus (as one grain or $\frac{2}{3}$ of a grain) may be burnt in glass retorts by the heat of a lamp, without leaving any sensible residue; and in this way a grain of phosphorus, when converted into phosphoric acid by combustion, absorbs three cubic inches and two thirds of oxygen gas. From this result it follows that the acid is composed of

Phosphorus.. ..... .....100
Oxygen .... .....123·46

To verify this result the author had recourse to the phosphate of lead, which is a compound of 2 atoms of phosphoric acid + 1 atom yellow oxide of lead. He gives three analyses of his salt; one by Dr. Wollaston, one by professor Berzelius, and one by himself. A mean of both methods is taken, and the constituents of phosphoric acid are considered as

Phosphorus .....100
Oxygen..... .....123·37

This gives us 1.634 for the weight of an atom of phosphorus; 2·634 for the weight of an atom of phosphorous acid; and 3·634 for the weight of an atom of phosphoric acid.

The remainder of the paper is taken up with an account of the composition of the phosphates. The most remarkable are the combinations of phosphoric acid and lime, of which the most important and the one always formed in common circumstances, is the osteo-phosphate, or earth of bones. Whenever a salt containing lime is decomposed by a phosphate, osteo-phosphate of lime is always obtained.

There are three combinations of phosphoric acid and potash, and two phosphates of soda.

Linnæan Society.—On Tuesday the 5th of March a paper by Mr. Robert Brown, Librarian to the Society, was read, giving an account of some anomalies in the structure of seeds. According to the author, no seed exists without a covering; but sometimes this covering bursts before the seed comes to maturity. He gave a particular account of the structure of the seed of the leontice thalictroides, which had been mistaken by preceding carpologists.

On Tuesday the 19th of March a paper by Mr. Salisbury was read, on a natural family of plants, to which he gave the name of *rodoraceæ*. He divided it into three orders; namely, *andromedeæ*, *ericeæ*, and *epacrideæ*. The paper contained a detail of the different genera which constitute the order of andromedeæ. The author pointed out many new distinctions, which enabled him to subdivide several of the genera, and established new genera.

*Annual Report of the London Vaccine Institution.*—It appears, that during the last year,

| | |
|---|---|
| There have been Vaccinated by Dr. Walker..... | 2,351 |
| From the beginning..... | 23,711 |
| By the appointed Inoculators in the Metropolis | 9,893 |
| From the beginning..... ..... | 28,887 |
| By the appointed Inoculators in the Country..... | 16,457 |
| From the beginning..... | 324,007 |

Dr. Walker, since the last Report, has supplied to 3,253 applicants, 16,265 charges of matter; from the beginning, to 36,631 applicants, 175,768 charges.

The Academy of Arts and Societies in Denmark has appointed a Committee to investigate the asserted efficacy of *Tannin* as an antidote against all poisons, whether mineral or vegetable.

### II.—PRIZE QUESTIONS.

The Royal Society of Gottingen has offered a prize of fifty ducats, for the best Latin dissertation on the following subject.—"To ascertain, by decisive and unequivocal experiments, whether muriatic acid, and oxymuriatic acid be oxygenized substances; that is to say, whether these acids be compounds of a combustible basis and

oxygen: and, in the event of these substances not containing oxygen, whether oxymuriatic acid can be regarded as a simple substance, having some analogy with oxygen."—The dissertations must be transmitted to the Society before the end of September 1818.

III.—MEDICAL.

*Bismuth.*—The white oxyde of bismuth is a favourite remedy among the German physicians. It is administered in colic, in spasmodic vomitings, and in all spasmodic affections of the intestinal canal that are attended with a high degree of irritation. It is given in doses of one to six grains every two or three hours. Others give very small doses of $\frac{1}{2}$ or $\frac{3}{4}$ of a grain as often as every half or three quarters of an hour, till the spasmodic irritability lessens, and then increase the dose at longer intervals. It is frequently combined with other antispasmodics and narcotics. Dr. *Gumprecht* has written on the medicinal use of bismuth (vide *Annales Cliniques de Montpellier*, tom. xxiv. No. 100, *Avril* 1811,) and Dr. *Reil* of Halle also published some valuable remarks on it (vide *Memorabilia Clinicis, Fasicul.* iv. p. 27)—Halle, 1799.

*Animal Magnetism.*—From our correspondents we learn, that animal magnetism continues its undiminished sway in Germany; and that the faculty of the British Islands are considered as singular for their scepticism regarding its wonder-working powers in various disorders of the human body.

*Puriform Ophthalmia.*—The observation of the late Mr. B. Gibson of Manchester, that the fluor albus of the mother was very frequently the cause of the *ophthalmia puriformis infantarum*, is confirmed by experience in Germany; and the midwives have consequently been directed, whenever symptoms of fluor albus are apparent on the parturient female, to wash the eyes of the infants directly with water in which a little spiritus lavendulæ is diluted; and if the ophthalmia increases, to call in medical aid, and to apply mercury.

*Juniper Beer.*—Professor *Hegervisch*, of Kiel, attests, that among all direct diuretic remedies, none was to be compared in efficacy to that well-known, and by physicians too much neglected, domestic remedy, *beer, boiled with juniper-berries.*

*Cancer.*—Professor *Osiander*, of Gottingen, has found, in *cancer uteri*, injections of diluted *Ferrum phosphoricum* very useful.

*Asthma.*—The physicians of Hamburgh have experienced in high degrees of *asthma spasmodicum*, the great utility of mustard baths, in which the arms to the shoulders are kept for about twenty minutes.

*Premature Labour.*—In the second volume of the *Repository*, page 446, an allusion has been made to the propriety of bringing on premature labour in cases of distortion of the pelvis; as if the introduction of the practice was by Dr. Merriman. A correspondent observes, that a reference to the eighth volume of Medical Facts and Observations, edited by the late Dr. Foart Simmons, will shew that this statement is not correct.

*Oil of Turpentine.*—The oil of turpentine, as a remedy, has been frequently tried in Germany, in doses from one to two ounces. It has always produced a greatly increased evacuation by stool and urine, and sometimes a considerable portion of worms; but it is not spoken of as effecting a radical cure in any of the cases.

IV.—ANATOMICAL AND SURGICAL.

*Pus between the Coats of the Stomach.*—We have been favoured by Dr. Hooper with the sight of the pyloric portion of a stomach, in which the muscular and vascular coats were separated about one-third of an inch from each other, by the deposition of a corresponding quantity of pus. The disease of which the patient died was acute rheumatism, which is supposed to have attacked this organ.

*Perforation of the Membrana Tympani for the Relief of Deafness.*—This operation was so much practised in Germany a few years since, especially by *Hunold* of Cassel, and *Faust* of Bückeburg, that the former operated on nearly two hundred persons in the course of a few months. A paper, in Latin, read before the Medical Society of Gottingen, by Professor *Himly*, and afterwards published, tended to check this abuse; and, now, little is heard of perforating this membrane by any German surgeon;—an extreme which, the Professor informs us, he as much regrets as he did the indiscriminate practice; and therefore is about to attempt the revival of it, from a conviction of its utility under certain circumstances.

*Case of consolidated Fingers.*—Mr. Counsellor Von Walther, of Landshut, had an opportunity of observing the following curious case of consolidated fingers:—A boy, eight years of age, had the four fingers on both hands quite grown together, so that only the thumbs were free and moveable: the fore-finger on both hands was joined by the middle-finger only by means of a membrane. Under the tegumenta cutis the bones seemed to be separated, and each finger provided with the proper nerves, vessels, and muscles. The fore-finger was well articulated; each phalanx had its corresponding size, and processus articulorum. On the middle finger the phalanges were still discernible, but the processi articulorum were not perfectly developed. The free motion of the fore-finger, therefore, seemed only to be prevented by its connection with the middle-finger. On the rest of the fingers the phalanges, and particularly that of the nail, seemed to be more crippled, and the consolidation seemed to be ossified, as they were inseparable; and an attempt to separate them by means of a bistoury was unsuccessful. Only the fore-finger on both hands could be disunited from the middle-finger, and acquired a sufficiently free movement.

*Scirrhous Glandular Tumour.*—A scirrhous glandular tumour, about the size of the fist, reaching from the ear to below the jaw, partly adhering to the mastoid muscle, and for the space of half an inch close upon the carotid artery, was successfully removed by *Dr. Busse.* The operation was difficult, on account of the considerable

and dangerous adhesions. But it was remarkable, from so many ramifications of the arteries being divided, without subsequent haemorrhage following; although no ligatures were used.

### V.—PHARMACEUTICAL.

*Vinegar.*—The following method of manufacturing this substance is detailed in a letter from M. *Schoedelin*, an Apothecary at Schelestat, in the department du Bas-Rhin:—"I put into a barrel of sufficient dimensions, a mixture composed of twenty litres (about 41 wine pints) of water, four litres (rather more than 8 wine pints) of whiskey *(d'eau de vie de grain)*, a kilogramme (about 2 wine pints) of yeast, and the same quantity (32 ounces Troy) of beech charcoal; and place it in a proper situation for fermentation. At the end of four months, a very strong vinegar is formed, as white as water.

### VI.—NATURAL HISTORY.

*Arrow Root.*—This well-known substance is obtained from the roots of the Maranta *arundinacea*, an American plant, which is said to grow wild in Jamaica, and has been long cultivated in the West Indies. The plant grows to the height of three feet, and dies down to the root every year. The roots, which are about an inch and a half thick, covered with scales, are washed clean, peeled, and pounded in a mortar; and the woody fibres separated from the powder by washing it. The fecula which precipitates is the starchy part, or the *Indian arrow root*, as it is termed.

### VII.—LITERARY NOTICES.

Dr. Spix, of Munich, has just published, in imperial folio, a volume, intitled—*Cephalogenesis, sive Capitis ossei structura, formatio et significatio per omnes animalium Classes, Familias, Genera et Ætates Digesta, atque Tabulis illustrata, Legesque simul Psychologiæ inde derivatæ.* In this work the head is considered in its evolutions throughout the whole series of animals, from man to insects; and at all periods of life, from the embryo to old age. To those interested in the fancies of Gall and Spurzheim, the prospectus of this publication holds out great attractions.

*M. Chaussier* is about to publish a work to be intitled, "*Recueil de Mémoires, Consultations et Rapports sur divers objets de Médécine légale.*" It has already been submitted to the Institute, and a favourable report of its contents delivered by Pinel and Hallé, who were appointed to examine it.

*M. Majendie* has just published the first volume of his *Traité Elementaire de Physiologie;* an analysis of which we hope soon to be able to lay before our readers.

*Dr. Albers*, of Bremen, has published his Essay, intitled, "*Commentatio de Trachetide Infantum, vulgo Croup vocata.*" This work, which obtained for its author one half of the prize offered by the late Emperor Napoleon, having been politely transmitted to us by its author, we propose giving an analysis of it.

# SEVENTH REPORT

## Of the General Committee of Associated Apothecaries and Surgeon-Apothecaries of England and Wales.

Crown and Anchor Tavern, April 24th, 1816.

This Committee never having ceased its attention to the objects for which it was appointed, begs leave to detail its proceedings, since the last Report of January the 10th, 1815, which was published through the medium of the Medical Journals.

It is sufficiently known, that an Act, solicited by the Society of Apothecaries, passed last session, "For the better regulating the Practice of Apothecaries throughout England and Wales."

During the passing of the Bill, many of the amendments to which former Reports of this Committee refer, were introduced; several alterations were also made in it; and after it had passed both Houses, owing to some amendments introduced by the Peers, it was rejected by the Commons; and a new Bill, *pro forma*, was obliged to be brought in, and again be carried through Parliament. This unusual circumstance produced so much delay, that there was scarcely time to pass the second Bill through the regular stages before the close of the session*.

Early in June, this Committee received a copy of a Bill "For Enlarging the Charter of the Royal College of Surgeons, &c."

The Committee approved of the principle of this Bill, generally; but objected to it: 1. That it empowered the College to demand whatever sum it pleased for a diploma: 2. That it continued the annual contribution levied on Members of the College residing within seven miles of London: and, 3. That it contained no provisions for the regulation of the Practice of Midwifery.

The Committee therefore petitioned against the Bill; the effect of which was, that the College was not to exact any larger sum or sums than paid at present for diplomas, or as contributions; and that some provisions concerning Midwifery were introduced. It was the wish of the Committee, that a Board of Examiners in Midwifery should be appointed by the College. But this was positively and successfully resisted. Finally, a provision was inserted, that no male person should, *in future*, be allowed to commence practising Midwifery, for lucre or gain, except Members of the College of Surgeons, (saving the

* See *Repository*, vol. iii. p. 167.

rights of the College of Physicians). To this, as a compromise, the Committee yielded; upon the conviction, that if none hereafter were suffered to enter into this practice but those who had received a medical education, and had been examined touching their knowledge in Anatomy and Surgery, there could remain no doubt that the public would be effectually guarded against the intrusion of ignorant pretenders; nor was it likely that any Member of the College would exercise the Art of Midwifery without previous instruction. The Committee of the House of Commons would not allow any mention of female midwifes. This Bill meeting some obstruction in the House of Peers, and the lateness of the session preventing its being obviated, it was withdrawn.

It has been introduced into Parliament in the present session; but again meeting with objections, the College did not persist, and press for a division upon it.

There is no official authority for mentioning it; but the Committee, from private information, has some reason for believing, that another Bill will be arranged, founded upon more enlarged and disinterested views.

This Committee did not expect that an Act so novel in its principles as the Apothecaries', would be free from errors; indeed many of its defects had been pointed out in the debate which took place upon it in the House of Peers. Some of these unquestionably resulted from the confusion attendant on the untoward circumstances with which the Bill was passed; and the time before the session would close did not admit of remedying them. During the recess, the Committee saw with extreme pain, that there were more errors in the Act than were at first observed; and that its operation was in some parts retrospective, and consequently unjust.

As the Act had been taken out of the hands of this Committee, and was solicited by the Society of Apothecaries, the former entertained no doubt that the latter would bring in a Bill this session, to amend whatever errors existed in it. The Committee waited the meeting of Parliament; and finding time passing on without any movement of the Society for the purpose, conceived it an indispensable duty to apply to that Body for an explanation of its intentions.

The following resolutions were therefore passed and transmitted to the Society, with a request of an early answer:

(COPY.)

Gentlemen, 62, *Gower Street, March 23d*, 1816.

Pursuant to a resolution of the General Committee of Apothecaries and Surgeon-Apothecaries of England and Wales, I have the honour to present to you a copy of the Resolutions

passed at a Meeting held on the 19th inst. to which the Committee request an early answer.

I have the honour to be, GENTLEMEN, your obedient humble servant, G. M. BURROWS.

*To the Master, Wardens, and Court of Assistants of the Society of Apothecaries.*

At a Meeting of the General Committee, held on March 19th ultimo, it was

RESOLVED,

"That as the provisions (see sections 14 and 15) of the Act "for the better Regulation of the Practice of Apothecaries" have a retrospective effect, in consequence of certain unexpected alterations being made in the Bill, which effect was not contemplated by the framers of that Bill, and which has been found extremely prejudicial to the interests of numerous Medical Students and others;

RESOLVED,

"Therefore, that a respectful appeal be made to the Society of Apothecaries, to apply to Parliament during the present Session, for the purpose of making such Amendments in the Act as shall obviate its retrospective operation."

To which this communication was returned:

SIR, *Apothecaries' Hall, 9th April* 1816.

I am directed by the Committee appointed by the Master, Wardens, and Court of Assistants, to whom your letter of the 19th of March, together with two Resolutions of your General Committee, were referred, to acknowledge the receipt thereof; and to inform you that the same will be taken into consideration at the next meeting of the Committee.

I am, SIR, your obedient humble servant,

*To G. M. Burrows, Esq.* J. BACKLER, Ck.

This proving very unsatisfactory, the Chairman was requested to apply for a definite answer; when he again wrote:

GENTLEMEN, 62, *Gower Street, April 17th,* 1816.

At a Meeting held this evening of the General Committee of Apothecaries and Surgeon-Apothecaries of England and Wales, I was requested to communicate to you, that the Meeting was adjourned to this day week, for the purpose of *then* receiving and taking into consideration an answer to the Resolutions of the Committee of the 19th ult., and which I had the honour of transmitting.

And I am further instructed to request that the said answer be a definite one to the subject of those Resolutions.

I have the honour to be, GENTLEMEN, your obedient humble servant, G. M. BURROWS, Chairman.

*To the Master, Wardens, and Society of Apothecaries.*

On the 19th, the following was received:

SIR, *Apothecaries' Hall*, 19 *April* 1816.

I am directed by the Bill Committee of the Court of Assistants to transmit to you a copy of their Resolution of the 16th instant.

I am, SIR, your obedient humble servant,

J. BACKLER, Clerk to the Society.

*To Dr. G. M. Burrows.*

At a Meeting of the Bill Committee appointed by the Court of Assistants held at Apothecaries' Hall, on Tuesday the 16th of April, 1816,

The Committee, having taken into consideration the Letter addressed to the Court by Dr. G. M. Burrows, with the resolution of the General Committee of Apothecaries and Surgeon Apothecaries of England and Wales, calling upon them to apply to Parliament for an amended Act,

RESOLVED,

"That it does not appear to this Committee that any such practical inconvenience has arisen from the alledged defects of the Act of last Session as to induce this Committee to recommend to the Court of Assistants any immediate application to Parliament."

As it was well ascertained by your Committee, that the Society of Apothecaries was fully apprised of the *practical inconveniencies that had arisen from the alledged defects* in the Act, it was clear, from this Resolution, it had determined not to apply to Parliament, this session at least, to amend it.

This decision the Committee exceedingly laments. Deeply impressed with the greatness of the injury sustained by several classes of the Medical Profession, from the errors in the Act; and hence its inadequateness for the objects intended; and sincerely deploring the consequences; it feels bound to adopt every means in its power to seek that redress which the extent and urgency of the evil demand. But previously to any other steps being taken, this Committee requires more specific information

than it yet possesses, of the injuries and inconveniencies experienced from the operation of the Act.

Much information has been received by various Members of the Committee, on the subject of the Act, but not in that capacity, but as private individuals. None of the District Committees have communicated with the General Committee since the publication of the Sixth Report of January 1815; nor have any individuals addressed it.

This Committee is consequently without official data on which to found any further proceedings, that may lead to the attainment of that object which it avowedly professes — the amendment of the Apothecaries' Act.

The Resolution annexed, which has been advertised very generally, it is hoped will procure the necessary documents, and evince to the Profession, that this Committee is ever alive to the interests of its constituents, and will never abandon a trust so honourably bestowed, and with so much confidence continued.

G. M. Burrows, Chairman.

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*To Apothecaries, Surgeon-Apothecaries, Students, &c.*

The General Committee of Associated Apothecaries and Surgeon-Apothecaries of England and Wales having seen, with much regret, that the Apothecaries' Act has a retrospective operation upon all students and pupils who have not served an apprenticeship of, or were not bound for, five years prior to the 1st of August last; and likewise upon all army and navy surgeons; and that many of the clauses are defective and inefficient—have

Resolved,

That all persons whose interests are affected by the said Act be requested to communicate *(post paid)* their cause of complaint to the Secretary of this Committee, on or before the 11th of May next.

(Signed) W. T. WARD, Secretary,

*Holles St. Cavendish Sq.*

*Committee Room, April 24th, 1816.*

# A METEOROLOGICAL TABLE,

## *From the 21st of March to the 20th of April*, 1816,

### KEPT AT RICHMOND, YORKSHIRE.

230 Miles NW from London.

| D. | Barometer. Max. | | Barometer. Min. | | Therm. Max | Therm. Min. | Rain Gage. | Winds. | Weather. |
|---|---|---|---|---|---|---|---|---|---|
| 21 | 29 | 72 | 29 | 64 | 42 | 31 | | SE.W. | 1 Cloud.. 3 S.. 4 Stl.... |
| 22 | 29 | 90 | 29 | 83 | 42 | 31 | | NE.. | 1 Sun... |
| 23 | 29 | 94 | 29 | 94 | 42 | 33 | | NW.NE. | 1 Sun... |
| 24 | 29 | 88 | 29 | 82 | 44 | 33 | | SE.. | 1 Cloud.. 2 S.. 4 Starl.... |
| 25 | 29 | 86 | 29 | 92 | 88 | 34 | | SE. | 1 Cloud... |
| 26 | 29 | 89 | 29 | 89 | 39 | 34 | | E.NE. | 1 Cloud... |
| 27 | 29 | 86 | 29 | 83 | 38 | 34 | | ENE. | 1 Cloud.. 4 Starl.. |
| 28 | 29 | 83 | 29 | 83 | 40 | 34 | | ESE. | 1 Sun. 3 Cloud... |
| 29 | 29 | 86 | 29 | 86 | 38 | 31 | | SE. | 1 Cloud... |
| 30 | 29 | 88 | 29 | 86 | 39 | 33 | | SE. | 1 Sun. 2 Cloud... |
| 31 | 29 | 88 | 29 | 76 | 40 | 31 | | SE.. | 1 Sun. 2 Cloud... |
| 1 | 29 | 66 | 29 | 53 | 43 | 33 | | SE.. | 1 3 4 Cloud.. 2 Sun.. |
| 2 | 29 | 68 | 29 | 55 | 43 | 31 | | SE.. | 1 Cloud.. 2 S.. 4 Moon.. |
| 3 | 29 | 72 | 29 | 70 | 40 | 34 | | ENE..E. | 1 Sun... 2 Cloud... |
| 4 | 29 | 76 | 29 | 67 | 39 | 35 | | EbN.. | 1 Cloud... |
| 5 | 29 | 49 | 29 | 29 | 56 | 37 | | EbN.SW. | 1 3 Cloud.. 2 S.. 4 Mn.. |
| 6 | 28 | 97 | 28 | 75 | 55 | 31 | | SW.. | 1 S.. & Sh of hail. & R. |
| 7 | 28 | 80 | 28 | 78 | 40 | 34 | 23 | NW.. | 1 Snow.. |
| 8 | 29 | 04 | 28 | 92 | 50 | 34 | | NW..W.. | 1 4 Cloud.. 2 Cloud |
| 9 | 29 | 13 | 29 | 08 | 48 | 34 | 22 | NE.. | 1 Sun.. & Sh of sleet.. |
| 10 | 29 | 34 | 29 | 24 | 42 | 34 | 41 | N.NE.. | 1 Snow.. 2 Rain... |
| 11 | 29 | 42 | 29 | 40 | 53 | 38 | | N.. | 1 Cloud.. 2 S. 3 Mist... |
| 12 | 29 | 49 | 29 | 46 | 44 | 32 | | N..NE.. | 1 Cloud.... 4 Snow. |
| 13 | 29 | 32 | 29 | 19 | 42 | 24 | | NW.. | 1 Sun.. & Sh of Snow. |
| 14 | 29 | 26 | 29 | 24 | 43 | 28 | | NW.. | 1 S... 3 Sh. of sn. 4 mn... |
| 15 | 29 | 29 | 29 | 13 | 48 | 34 | | NW...E. | 1 Sun... 3 Cloud.. |
| 16 | 28 | 92 | 28 | 91 | 55 | 33 | 10 | SE..SW... | 1 Sun.. & Sh of Rain.. |
| 17 | 29 | 20 | 29 | 10 | 49 | 28 | 02 | SW..E. | 1 s..2sh of sn.3s....4stl.... |
| 18 | 29 | 22 | 29 | 08 | 56 | 29 | | SE..S... | 1 Sun... 3 Cloud.. |
| 19 | 29 | 62 | 29 | 44 | 54 | 34 | | WbN... | 1 S.. 3 Sh of R. 4 Stl.. |
| 20 | 29 | 60 | 29 | 50 | 59 | 33 | | SW.. | 1 Sun.. |

The quantity of rain during the month of March was 89-100ths. The weather during this last period has been very cold. There is not the least appearance of vegetation in this part of the country.

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## *Observations on Diseases at Richmond.*

The prevailing diseases have been Catarrhal Fever and Hooping-Cough; which last complaint has frequently had a fatal termination. A case of Hysteria with anomalous and aggravated symptoms was speedily cured by active purging. The other cases under treatment were Anasarca, Hypochondriasis, Obstipatio, Phthisis Pulmonalis, and Podagra.

# METEOROLOGICAL TABLE FOR LONDON,

*From the 20th of MARCH, to the 19th of APRIL, 1816,*

By Messrs. HARRIS & Co.

*Mathematical Instrument Makers, 50, High Holborn.*

| M | D. | Therm. | | | Barom. | | Rain Guage | De Luc's Hygrom. Dry. | Damp. | | Winds. | | Atmo. Variation | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 | 37 | 37 | 40 | $29^{9}$ | 30 | | | 6 | 6 | NW | N | Fine | — | — |
| | 21 | 36 | 45 | 42 | 30 | 30 | | | 6 | 6 | N | SSW | Clo. | — | — |
| | 22 | 36 | 48 | 44 | $30^{1}$ | $30^{1}$ | | | 6 | 5 | SE | ESE | Fog | Fine | Clo. |
| ◐ | 23 | 39 | 45 | 40 | $30^{2}$ | $30^{3}$ | | | 5 | 5 | NE | NE | Fine | — | — |
| | 24 | 37 | 40 | 38 | $30^{3}$ | $30^{2}$ | | | 4 | 4 | NE | ENE | Fine | — | — |
| | 25 | 36 | 41 | 40 | $30^{3}$ | $30^{1}$ | | | 5 | 7 | NE | ENE | Clo. | — | — |
| | 26 | 31 | 42 | 40 | $30^{1}$ | $30^{2}$ | | | 6 | 6 | NE | NE | Clo. | — | — |
| | 27 | 37 | 40 | 38 | $30^{2}$ | $30^{1}$ | | | 5 | 5 | NNE | NE | Clo. | — | — |
| | 28 | 34 | 39 | 31 | $30^{1}$ | $30^{1}$ | | | 4 | 2 | NNE | NE | Fine | — | — |
| | 29 | 37 | 42 | 38 | $30^{1}$ | $30^{1}$ | | 0 | 1 | 0 | NE | E | Clo. | Fine | — |
| ● | 30 | 34 | 40 | 36 | $30^{2}$ | $30^{2}$ | | 0 | 0 | 1 | E | NE | Clo. | — | — |
| | 31 | 30 | 45 | 34 | $30^{2}$ | $30^{1}$ | | | 3 | 4 | E | NE | Fine | — | Clo. |
| | 1 | 30 | 45 | 38 | $30^{1}$ | $29^{9}$ | | | 4 | 4 | ENE | ENE | Fine | — | Clo. |
| | 2 | 34 | 45 | 33 | $29^{8}$ | $29^{9}$ | | | 3 | 3 | E | NE | Fine | — | — |
| | 3 | 35 | 40 | 32 | $29^{8}$ | $29^{9}$ | | | 1 | 3 | E | NE | Fine | — | — |
| | 4 | 34 | 45 | 31 | $29^{9}$ | 30 | | | 3 | 3 | NE | NNE | Fine | — | — |
| | 5 | 33 | 46 | 27 | 30 | $29^{8}$ | | | 2 | 2 | NE | NNE | Clo. | Fine | — |
| | 6 | 39 | 50 | 36 | $29^{6}$ | $29^{5}$ | | | 2 | 3 | NW | SW | Fine | — | — |
| | 7 | 41 | 49 | 35 | $29^{2}$ | $29^{1}$ | | | 3 | 4 | W | W | Fine | Rain | Clo. |
| | 8 | 37 | 45 | 35 | $29^{1}$ | $29^{1}$ | 09 | | 4 | 3 | NW | NE | Clo. | — | Fine |
| | 9 | 37 | 44 | 35 | $29^{2}$ | $29^{2}$ | | | 3 | 5 | NNE | N va | Clo. | — | — |
| | 10 | 42 | 48 | 37 | $29^{1}$ | $29^{4}$ | 30 | | 5 | 6 | N | E | Rain | Clo. | Fine |
| ○ | 11 | 42 | 47 | 40 | $29^{5}$ | $29^{6}$ | | | 6 | 13 | NE | SSW | Rain | — | Fine |
| | 12 | 40 | 41 | 31 | $29^{6}$ | $29^{6}$ | 41 | | 10 | 9 | SW | WNW | Rain | Clo. | Rain |
| | 13 | 35 | 39 | 30 | $29^{7}$ | $29^{8}$ | | | 8 | 6 | NW | NW | Clo. | — | — |
| | 14 | 35 | 48 | 31 | $29^{5}$ | $29^{6}$ | | | 5 | 5 | N | NW | Fine | Sno. | Fine |
| | 15 | 34 | 39 | 35 | $29^{5}$ | $29^{5}$ | | | 4 | 5 | W | NW | Fine | Sno. | Fine |
| | 16 | 39 | 45 | 42 | $29^{5}$ | $29^{5}$ | 17 | | 4 | 5 | SW | SSW | Fine | Shoy | Clo. |
| ◐ | 17 | 43 | 52 | 40 | $29^{4}$ | $29^{5}$ | 12 | | 7 | 6 | WSW | NE | Rain | Fine | Clo. |
| | 18 | 42 | 52 | 42 | $29^{6}$ | $29^{6}$ | | | 7 | 5 | S | SSW | Fine | — | — |
| | 19 | 44 | 50 | 40 | $29^{6}$ | 30 | 08 | 0 | 5 | 0 | SW | SW | Fine | — | — |

The quantity of Rain during the month of March, is 1 inch 90-100ths.

## BILL OF MORTALITY *from March 19, to April 16, 1816.*

| | | March 26. | April 2. | April 9. | April 16. | |
|---|---|---|---|---|---|---|
| CHRISTENED. | Males | 244 | 243 | 189 | 228 | |
| | Females | 225 | 246 | 178 | 190 | |
| | | 469 | 489 | 367 | 418 | Total 1742. |
| BURIED | Males | 272 | 254 | 126 | 166 | |
| | Females | 240 | 257 | 181 | 162 | |
| | | 512 | 511 | 306 | 318 | Total 1707. |
| OF WHOM HAVE DIED | Under 2 Years | 154 | 123 | 106 | 77 | |
| | 2 and 5 | 51 | 48 | 37 | 31 | |
| | 5 and 10 | 27 | 24 | 13 | 10 | |
| | 10 and 20 | 14 | 25 | 10 | 9 | |
| | 20 and 30 | 32 | 36 | 26 | 22 | |
| | 30 and 40 | 32 | 51 | 32 | 31 | |
| | 40 and 50 | 46 | 55 | 45 | 32 | |
| | 50 and 60 | 58 | 44 | 33 | 33 | |
| | 60 and 70 | 49 | 45 | 33 | 31 | |
| | 70 and 80 | 35 | 41 | 20 | 27 | |
| | 80 and 90 | 23 | 18 | 8 | 15 | |
| | 90 and 100 | 4 | 4 | 3 | 2 | |
| | 100 | 1 | | | | |
| SMALL POX | | 11 | 10 | 6 | 14 | Total 41. |

## A METE

*From the 21st*

KEPT A

| D. | Barometer. Max. | | Min. | | Th Max |
|---|---|---|---|---|---|
| 21 | 29 | 72 | 29 | 64 | 42 |
| 22 | 29 | 90 | 29 | 83 | 42 |
| 23 | 29 | 94 | 29 | 94 | 42 |
| 24 | 29 | 88 | 29 | 82 | 44 |
| 25 | 29 | 86 | 29 | 92 | 88 |
| 26 | 29 | 89 | 29 | 89 | 39 |
| 27 | 29 | 86 | 29 | 83 | 38 |
| 28 | 29 | 83 | 29 | 83 | 40 |
| 29 | 29 | 86 | 29 | 86 | 38 |
| 30 | 29 | 88 | 29 | 86 | 39 |
| 31 | 29 | 88 | 29 | 76 | 40 |
| 1 | 29 | 66 | 29 | 55 | 43 |
| 2 | 29 | 68 | 29 | 55 | 43 |
| 3 | 29 | 72 | 29 | 70 | 40 |
| 4 | 29 | 76 | 29 | 67 | 39 |
| 5 | 29 | 49 | 29 | 29 | 56 |
| 6 | 28 | 97 | 28 | 75 | 55 |
| 7 | 28 | 80 | 28 | 78 | 40 |
| 8 | 29 | 04 | 28 | 92 | 50 |
| 9 | 29 | 13 | 29 | 08 | 48 |
| 10 | 29 | 34 | 29 | 24 | 42 |
| 11 | 29 | 42 | 29 | 40 | 53 |
| 12 | 29 | 49 | 29 | 46 | 44 |
| 13 | 29 | 32 | 29 | 19 | 42 |
| 14 | 29 | 26 | 29 | 24 | 43 |
| 15 | 29 | 29 | 29 | 13 | 48 |
| 16 | 28 | 92 | 28 | 91 | 55 |
| 17 | 29 | 20 | 29 | 10 | 49 |
| 18 | 29 | 22 | 29 | 08 | 56 |
| 19 | 29 | 62 | 29 | 44 | 54 |
| 20 | 29 | 60 | 29 | 50 | 59 |

THE quantity of r
The weather during th
least appearance of ve

*Obser*

The prevailing dis
Cough; which last co
case of Hysteria with
cured by active purg
sarca, Hypochondriasis,

| DISEASES. | Total. | Fatal. | DISEASES. | Total. | Fatal. |
|---|---|---|---|---|---|
| Lithiasis | 4 | | Prurigo *senilis* | 4 | |
| Mania | 6 | | Psoriasis *inveterata* | 3 | |
| Melancholia | 7 | 1 | Pyrosis | 7 | |
| Menorrhagia | 31 | | Rheumatismus *acutus* | 62 | |
| Miliaria | 5 | | ——— *chronicus* | 83 | |
| Morbi *Infantiles** | 131 | 3 | Roseola | 5 | |
| ——— *Biliosi** | 90 | | Rubeola | 58 | 3 |
| Nephralgia | 7 | | Scabies | 45 | |
| Nephritis | 5 | | Scarlatina *simplex* | 23 | |
| Neuralgia | 1 | | ——— *anginosa* | 12 | 1 |
| Obstipatio | 41 | | ——— *maligna* | 3 | 1 |
| Odontalgia | 21 | | Scirrhus | 1 | |
| Ophthalmia | 55 | | Scorbutus | 1 | |
| Otalgia | 7 | | Scrofula | 41 | |
| Palpitatio | 8 | | Spasmi | 8 | |
| Paralysis | 27 | 2 | Strictura | 9 | |
| Paronychia | 10 | | Strophulus *intertinctus* | 2 | |
| Pemphigus | 1 | | Sycosis *capillitii* | 1 | |
| Pericarditis | 1 | | Singultus | 1 | |
| Peripneumonia | 26 | | Syncope | 5 | |
| Peritonitis | 4 | | Syphilis | 44 | |
| Pernio | 21 | | Tabes Mesenterica | 3 | 1 |
| Pertussis | 62 | 5 | Tetanus | 1 | 1 |
| Phlegmasia *dolens* | 1 | | Tic Doloreux | 1 | |
| Phlogosis | 21 | | Vaccinia | 45 | |
| Phrenitis | 1 | 1 | Varicella | 12 | |
| Phthisis *Pulmonalis* | 53 | 18 | Variola | 30 | 9 |
| Plethora | 5 | | Vermes | 35 | |
| Pleuritis | 33 | | Vertigo | 42 | |
| Pleurodyne | 6 | | Urticaria *febrilis* | 5 | |
| Pneumonia | 61 | 6 | ——— *evanida* | 4 | |
| Podagra | 22 | | ——— *tuberosa* | 2 | |
| Porrigo *larvalis* | 1 | | | | |
| ——— *scutulata* | 4 | | Total of Cases | 3021 | |
| ——— *favosa* | 7 | | | | |
| Prolapsus | 12 | | Total of Deaths | | 113 |
| Prurigo *mitis* | 2 | | | | |

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct heads; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

### *Observations on Prevailing Diseases.*

The same condition of the atmosphere having prevailed during the last as in the former period, nearly the same diseases are reported.

Of *Anasarca* and *Ascites* there is a great increase of cases. *Asthma* has also been very frequent and severe. *Pertussis* is spreading: the symptoms in many instances are much aggravated, and have produced some fatal cases.

Several of our Reporters have, at various periods, noticed how much more frequent *Apoplexy* is than formerly. In the present month, there are nineteen cases, ten of which proved mortal. One of our very respectable correspondents, Mr. Gaitskell, has published in the *Repository*, vol. 5, p. 112, his remarks on the tendency of London porter to produce this affection. The subject is very important, and worthy of serious attention and investigation.

The case of *Tetanus* was of a man of temperate habits aged 70, who, in a fall, received a wound on the left temple. He bled profusely. A week intervened between the accident and the jaw becoming locked. He was cupped, a blister applied to the temples, and a turpentine glyster was injected. Embrocations of turpentine were used externally, and tincture of opium was freely exhibited. He died in three days from the disease being confirmed. There was once a partial opening of the mouth, but when any thing was attempted to be put into it, it became immediately closed.

A species of *Catarrh* has prevailed in the town, different from the ordinary form. It has commenced with the usual symptoms; but there has been a very considerable affection of the head attending it, with a low pulse, and great prostration of the muscular powers. If the throat and fauces were examined, they invariably presented a very dark coloured appearance. The immediate exhibition of bark, wine, and other stimuli, has in these cases produced a rapid amendment in the patient: but if a lowering system was persevered in, the disorder has sometimes assumed a typhoid character.

The death from *Melancholia* was by suicide.

*Examinationes post mortem.*—1. In the subject of *Tetanus*, in the head there was a strong adhesion of the dura mater to the skull, great turgescence of the vessels, and a considerable quantity of water in the ventricles. —2. One of the cases of *Rubeola* proved fatal from the excessive inflammation of the lungs. Between two and three pints of a fluid mixed with coagulable lymph were in the child's thorax, the pleura of the lungs was covered with lymph and much thickened, and the substance of the lungs appeared unusually vascular.—3. In the case of *Apoplexy* noticed above, about six ounces of blood were found in the brain, chiefly in the left hemisphere, and coming from the lateral ventricle. The effect of it had broken down the substance of the brain, and some blood had got into the substance of the pons variolii, and also into the right lateral ventricle. The arteries of the brain were much ossified.—4. In the case of *Enteritis*, the intestines were found very much distended with air, agglutinated by suffused coagulable lymph; in many parts highly inflamed, and in other parts gangrenous.

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*Monthly Prices of* SUBSTANCES *employed in* PHARMACY.

| | | S. | D. |
|---|---|---|---|
| Acaciæ Gummi elect. | lb. | 4 | 0 |
| Acidum Citricum | | 32 | 0 |
| —— Benzoicum | unc. | 6 | 6 |
| —— Sulphuricum | P. lb. | 0 | 9 |
| —— Muriaticum | | 2 | 0 |
| —— Nitricum | | 4 | 0 |
| —— Aceticum | cong. | 5 | 0 |
| Alcohol | M. lb. | 5 | 0 |
| Æther sulphuricus | | 10 | 6 |
| —— rectificatus | | 18 | 0 |
| Ærugo | lb. | 7 | 6 |
| Aloes spiratæ extractum | | 7 | 6 |
| — vulgaris extractum | | 5 | 0 |
| Althææ Radix | | 1 | 6 |
| Alumen | | 0 | 6 |
| Ammoniæ Murias | | 2 | 6 |
| —— Subcarbonas | | 4 | 0 |
| Amygdalæ dulces | | 2 | 6 |
| Ammoniacum (Gutt.) | | 10 | 6 |
| —— (Lump.) | | 5 | 0 |
| Anthemidis Flores | | 2 | 3 |
| Antimonii oxydum | | 7 | 0 |
| —— sulphuretum | | 1 | 3 |
| Antimonium Tartarizatum | | 7 | 0 |
| Argenti Oxydum | | 1 | 6 |
| Assafœtidæ Gummi-resina | lb. | 5 | 6 |
| Aurantii Cortex | | 3 | 9 |
| Argento Nitras | unc. | 7 | 0 |

| | | S. | D. |
|---|---|---|---|
| Balsamum Peruvianum | lb. | 30 | 0 |
| —— Tolutanum | | 20 | 0 |
| Benzoinum elect. | | 12 | 0 |
| Calamina præparata | | 0 | 3 |
| Calumbæ Radix | | 3 | 0 |
| Cambogia | | 9 | 0 |
| Camphora | | 8 | 0 |
| Canellæ Cortex | | 6 | 6 |
| Cardamomi Semina opt. | lb. | 9 | 0 |
| Cascarillæ Cortex | | 4 | 0 |
| Castoreum | unc. | 5 | 0 |
| Catechu Extractum | lb. | 3 | 6 |
| Cetaceum | | 3 | 6 |
| Cera alba | | 3 | 6 |
| —— flava | | 3 | 6 |
| Cinchonæ cordifoliæ Cortex (yellow) | | 6 | 0 |
| —— lancifoliæ Cortex (quilled) | | 10 | 6 |
| —— oblongifoliæ Cortex (red) | | 16 | 0 |
| Cinnamomi Cortex | | 20 | 0 |
| Coccus (Coccinella) | unc. | 3 | 6 |
| Colocynthidis Pulpa | lb. | 26 | 0 |
| Copaiba | | 6 | 0 |
| Colchici Radix | | 3 | 6 |
| Croci stigmata | unc. | 6 | 6 |
| Cupri sulphas | lb. | 1 | 2 |
| Cuprum ammoniatum | | 14 | 0 |
| Cuspariæ Cortex | | 4 | 0 |
| Conhœgio aromatica | | 9 | 6 |

| | | S. | D. |
|---|---|---|---|
| Confectio Aurantiorum | | 3 | 6 |
| —— Opii | | 4 | 0 |
| —— Rosæ caninæ | | 2 | 0 |
| —— Rosæ gallicæ | | 2 | 3 |
| —— Senna | | 1 | 8 |
| Emplastrum Lyttæ | | 7 | 6 |
| —— Hydrargyri | | 3 | 6 |
| Extractum Belladonnæ | unc. | 1 | 6 |
| —— Cinchonæ | | 2 | 6 |
| —— Cinchonæ resinosum | | 5 | 0 |
| —— Colocynthidis | | 4 | 0 |
| —— Colocynthidis comp. | | 2 | 0 |
| —— Conii | | 0 | 9 |
| —— Elaterii | | 24 | 0 |
| —— Gentianæ | | 0 | 6 |
| —— Glycyrrhizæ | lb. | 5 | 0 |
| —— Hæmatoxyli | unc. | 0 | 9 |
| —— Humuli | | 0 | 9 |
| —— Hyoscami | unc. | 1 | 6 |
| —— Jalapæ 2s. 6d. | Res. | 5 | 6 |
| —— Opii | | 3 | 6 |
| —— Papaveris | | 1 | 6 |
| —— Rhei | | 3 | 0 |
| —— Sarsaparillæ | | 1 | 6 |
| —— Taraxaci | | 0 | 9 |
| Ferri subcarbonas | lb. | 1 | 4 |
| — sulphas | | 1 | 6 |
| Ferrum ammoniatum | | 5 | 6 |
| —— tartarizatum | | 5 | 6 |
| Galbani Gummi-resina | | 12 | 0 |
| Gentianæ Radix elect | | 1 | 6 |
| Guaiaci resina | | 7 | 0 |
| Hydrargyrum purificatum | | 5 | 6 |
| —— precipitatum album | | 9 | 0 |
| —— cum creta | | 6 | 6 |
| Hydrargyri Oxymurias | unc. | 0 | 9 |
| —— Submurias | | 0 | 9 |
| —— Nitrico-Oxydum | | 0 | 9 |
| —— Oxydum Cinereum | | 1 | 6 |
| —— Oxydum rubrum | | 6 | 0 |
| —— Sulphuretum nigrum | | 0 | 4 |
| —— —— rubrum | | 0 | 9 |
| Hellebori nigri Radix | lb. | 2 | 6 |
| Ipecacuanhæ Radix | | 18 | 0 |
| —— Pulvis | | 20 | 0 |
| Jalapæ Radix | | 6 | 0 |
| —— Pulvis | | 7 | 0 |
| Kino | | 10 | 6 |
| Liquor Plumbi subacetatis | M. lb. | 1 | 8 |
| — Ammoniæ | | 3 | 6 |
| — Potassæ | | 1 | 6 |
| Linimentum Camphoræ comp. | | 6 | 6 |
| —— saponis comp. | | 4 | 6 |
| Lichen | lb. | 1 | 4 |
| Lyttæ | | 14 | 0 |
| Magnesia | | 10 | 6 |
| Magnesiæ Carbonas | | 4 | 0 |
| —— Sulphas, opt. | | 1 | 2 |
| Manna optima | | 7 | 6 |
| — communis | | 5 | 6 |
| Moschus pod, (50m.) in gr. | unc. | 40 | 0 |
| Mastiche | lb. | 7 | 0 |
| Myristicæ Nuclei | | 20 | 0 |
| Myrrha elect. | | 9 | 0 |
| Olibanum | | 4 | 6 |
| Opoponacis gummi resina | | 30 | 0 |
| Opium (Turkey) | | 40 | 0 |
| Opium (East India) | | 41 | 0 |
| Oleum Æthereum | oz. | 2 | 0 |
| — Amygdalarum | lb. | 4 | 8 |
| — Anisi | unc. | 3 | 0 |
| — Anthemidis | | 6 | 6 |
| — Cassiæ | | 9 | 0 |
| — Caryophilli | | 6 | 6 |
| — Cajuputi | | 7 | 0 |
| — Carui | | 1 | 6 |
| — Juniperi Ang. | | 5 | 0 |
| — Lavandulæ | | 4 | 6 |
| — Lini | cong. | 6 | 6 |
| — Menthæ piperitæ | unc. | 4 | 0 |
| — Menthæ viridis Ang. | | 4 | 6 |

| | | S. | D. |
|---|---|---|---|
| Oleum Pimentæ | unc. | 6 | 6 |
| — Ricini optim. | (per bottle) | 12 | 0 |
| — Rosmarini | unc. | 1 | 0 |
| — Succini 2s. 6d. | —— rect. | 5 | 0 |
| — Sulphuratum | P. lb. | 1 | 6 |
| — Terebinthinæ | | 1 | 2 |
| — —— rectificatum | | 2 | 6 |
| Olivæ Oleum | cong. | 20 | 0 |
| — Oleum secundum | | 12 | 0 |
| Papaveris Capsulæ | (per 100) | 3 | 6 |
| Plumbi subcarbonas | lb. | 0 | 8 |
| — Superacetas | | 2 | 6 |
| — Oxydum semi-vitreum | | 0 | 9 |
| Potassæ Fusa | unc. | 1 | 4 |
| — cum Calce | | 0 | 6 |
| Potassæ Nitras | lb. | 1 | 6 |
| — Acetas | | 10 | 0 |
| — Carbonas | | 4 | 6 |
| — Supercarbonas | | 1 | 8 |
| — Sulphas | | 1 | 6 |
| — Sulphuretum | | 2 | 6 |
| — Supersulphas | | 0 | 9 |
| — Tartras | | 3 | 6 |
| — Supertartras | | 1 | 10 |
| Pilulæ Hydrargyri | unc. | 0 | 9 |
| Pulvis Antimonialis | | 0 | 9 |
| — Contrayervæ comp. | | 0 | 6 |
| — Tragacanthæ comp. | | 0 | 8 |
| Resina Flava | lb. | 0 | 5 |
| Rhei Radix (Russia) | | 12 | 0 |
| —— (East India) opt. | | 16 | 0 |
| Rosæ petala | | 14 | 0 |
| Sapo (Spanish) | | 3 | 0 |
| Sarsaparillæ Radix | | 8 | 0 |
| Scammoneæ Gummi-Resina | unc. | 3 | 6 |
| Scillæ Radix siccat. opt. | lb. | 4 | 6 |
| Senegæ Radix | | 4 | 0 |
| Sennæ Folia | | 6 | 6 |
| Serpentariæ Radix | | 3 | 0 |
| Simaroubæ Cortex | | 6 | 0 |
| Sodæ subboras | | 4 | 0 |
| — Sulphas | | 0 | 8 |
| — Carbonas | | 6 | 6 |
| — Subcarbonas | | 2 | 0 |
| — —— exsiccata | | 5 | 0 |
| Soda tartarizata | | 2 | 6 |
| Spongia usta | | 24 | 0 |
| Spiritus Ammoniæ | M. lb. | 5 | 0 |
| — —— aromaticus | | 5 | 0 |
| — —— fœtidus | | 5 | 0 |
| — —— succinatus | | 5 | 6 |
| — Cinnamomi | | 3 | 0 |
| — Lavandulæ | | 5 | 0 |
| — Myristicæ | | 3 | 6 |
| — Pimentæ | | 3 | 6 |
| — Rosmarini | | 5 | 0 |
| — Ætheris Aromaticus | | 7 | 6 |
| — —— Nitrici | | 5 | 0 |
| — —— Sulphurici | | 7 | 0 |
| — —— Compositus | | 7 | 6 |
| — Vini rectificatus | cong. | 27 | 0 |
| Syrupus Papaveris | lb. | 2 | 0 |
| Sulphur | | 0 | 9 |
| — Sublimatum | | 1 | 0 |
| — Lotum | | 1 | 2 |
| — Præcipitatum | | 1 | 4 |
| Tamarindi Pulpa opt. | | 2 | 0 |
| Terebinthina Vulgaris | | 0 | 10 |
| —— Canadensis | | 6 | 6 |
| —— Chia | | 14 | 0 |
| Tinct. Ferri muriatis | | 5 | 6 |
| Tragacanthæ Gummi, elect. | | 8 | 0 |
| Valerianæ Radix | | 1 | 6 |
| Veratri Radix | | 2 | 6 |
| Unguentum Hydrargyri fortius | | 5 | 6 |
| —— —— Nitratis | | 2 | 8 |
| —— —— Nitrico-oxydi | | 3 | 0 |
| Uvæ Ursi Folia | | 3 | 6 |
| Zinci Oxydum | | 7 | 0 |
| — Sulphas purif. | | 3 | 0 |
| Zingiberis Radix opt. | | 4 | 0 |

Prices of New Phials per Gross.——8 oz. 70*s*.—6 oz. 58*s*.—4 oz. 47*s*.—3 oz. 43*s*.—2 oz. and 1½ oz. 36*s*.—1 oz. 30*s*.—half oz. 24*s*.——The London Glassmen allow 10 per Cent. ready money.——The Manufacturers in the Country, where all Phials are made, allow 27½ discount, at three months credit, (carriage free,) to London.

Prices of second hand Phials cleaned, and sorted.——8 oz. 46*s*.—6 oz. 44*s*.—4 oz. 33*s*. 3 oz. 30*s*.—2 oz. and all below this size, 25*s*.—Three months credit.

## NOTICES OF LECTURES.

Dr. Granville and Mr. A. T. Thomson propose delivering a Joint Course of Lectures on Botany and Materia Medica. — Mr. Thomson, who will deliver the Lectures on Botany, will commence his part of the Course on *Monday*, the 20th of May, and deliver a Lecture every subsequent *Monday, Wednesday*, and *Friday*: whilst Dr. Granville will give his First Lecture on Materia Medica on *Tuesday*, the 4th of June, and continue his part of the Course every *Tuesday, Thursday*, and *Saturday*, until the whole be completed.— Both parts of the Course will be illustrated by Experiments, and the most perfect Specimens that can be procured.— For Particulars, apply to Dr. Granville, Michael's Place, Brompton; Mr. Thomson, No. 91, Sloane Street; or Mr. Callow, Medical Bookseller, Crown Court, Princes Street, Soho.

Dr. Squire will, on Tuesday, May 14th, begin a Course of Lectures on the Principles and Practice of Midwifery; and the Diseases of Women and Children.

Mr. Hare will give a Course of Lectures on the Elements of Mineralogy and Geology, at his house, No. 27, Argyle-street, on the 27th instant, and continue them every following Monday and Friday until the Course is concluded.

## MONTHLY CATALOGUE OF BOOKS.

A Compendium of Medical Practice, illustrated by interesting and instructive cases, &c. &c. By James Bedingfield, Surgeon, royal 8vo.

A Treatise on the Medicinal Leech, including its Medicinal and Natural History, &c. &c. By J. R. Johnson, M.D. F.L.S. 8vo.

A Chemical Chart or Table, exhibiting an Elementary View of Chemistry, intended for the use of Students and young Practitioners in Physic, &c. By Robert Crowe, Surgeon in the Royal Navy.

An Essay upon the Spontaneous Evolution of the Fœtus. By John Kelly, M.D.

## NOTICES TO CORRESPONDENTS.

*The favours of* Mr. Sweeting, Mr. Robarts, Mr. Blacket, Mr. Clough, Mr. Henning, Mr. Brodie, *&c. are received.*

Mr. Edmondston's *Communication on Rabies came too late for insertion in the present Number: but shall certainly appear in the next.*

*In the* Monthly Catalogue of New Books, *it has hitherto been our custom, for the information of our Readers, to print the names of the Booksellers by whom they were published: but the Stamp Office having given notice, that, if the Booksellers' Names are added, every announcement of a book will subject us to the duty on an advertisement, the* Editors *beg leave to announce that they must discontinue the former practice.*

ERRATA in the last Number.

Page 281 line 40. *for* disturbed *read* distended
282 — 2. *for* annominatum *read* innominatum
44. *for* abdomen *read* duodenum
283 — 1. *for* surrounding *read* narrowed
293 — 28. *for* Infusa *read* Infusi

THE

LONDON MEDICAL

REPOSITORY.

No. 30. JUNE 1, 1816. Vol. V.

## PART I.

## ORIGINAL COMMUNICATIONS.

### I.

*Some Observations on Cynanche Laryngea, illustrated by Cases.*
By Alexander Fraser, M.D. Wisbech, Cambridgeshire.

In the sixth volume of the Medico-Chirurgical Transactions, a case of Cynanche laryngea, successfully treated, is related, upon which very judicious and interesting remarks are annexed by the President. The subject is one of great importance; and, as the cases on record are not very numerous, any addition that can elucidate the pathology of this disease becomes valuable. The observations which I have to offer, are the result of rather an extensive experience: for within the last ten years I have seen about twenty cases of this formidable malady, and have heard of several others. The local circumstances of Wisbech and its neighbourhood satisfactorily account for the frequency of the disease.

The vicinity, for many miles around, is an extensive flat, intersected in all directions by ditches and drains, which, in the winter and spring months, are for the most part full of water. In wet seasons, when much rain has fallen on the uplands, the water descends in such quantities, that the engines employed in draining the country are not equal to discharge it into the main drains and rivers; hence the waters accumulate in the ditches and reservoirs; the necessary consequence of which is, especially when a breach of bank takes place, that considerable portions of cultivated land, and sometimes whole districts are inundated. From this statement it must appear, that the agricultural part of our population is frequently exposed, during the winter and spring months, to the operation of cold

and moisture. During the prevalence, therefore, of easterly winds, and being surrounded by an extensive evaporating surface, it is to be expected that inflammatory diseases of a dangerous character should frequently occur.

In the winter of 1806, I was desired to visit a middle-aged man, by occupation a shepherd, living about twelve miles from Wisbech: but engagements unfortunately prevented me from seeing him until the following day. When I arrived, I found him dressed and sitting up. He said he was much better than he had been, and conceived that my visit was *now* unnecessary. I was informed, however, both by himself and his usual medical attendant (who was present), that two days before, after an exposure to cold, he was seized with pain in the throat; which was soon followed by a severe rigor and fever, great and constant difficulty of breathing, and a total inability to swallow. He continued in a state of great agony and distress for nearly forty hours; when, as he said, he was suddenly relieved; and he could now breathe much easier, and swallow with tolerable facility. These happy results he ascribed to the operation of a blister to his throat, and the inhalation of the steam of warm water and vinegar.

Notwithstanding these flattering appearances, this patient seemed to me nearly in a moribund state; his countenance was livid, sunk, and cadaverous; his voice feeble; his extremities cold and livid, and his pulse quick, small, and weak. In looking into his mouth, I found he could extend his jaws *fully*; and I had a complete view of the internal parts. The tongue was red and glossy, without a particle of fur; whilst the tonsils, uvula, and pharynx, were of a dark, erysipelatous, red colour, and not at all swelled. His appearance altogether was that of a person dying from intestinal inflammation terminating in gangrene; yet he had had no complaint either in the stomach or the bowels.

After apprizing him of his hazardous situation, I recommended brandy, cinchona, and sulphuric acid: but I learned afterwards from his Apothecary, that no re-action, no heat, was produced; and that he died in less than twenty-four hours from the time I saw him.

About two years after the occurrence of the last case, I was called in to another, similar in almost every particular, and terminating in the same manner; and am induced to think that cynanche laryngea does, in some violent cases, terminate in gangrene extending probably into the lungs. This, however, is merely conjecture; as I have never had an opportunity of inspecting the parts after death. The very partial admission of the vivifying principle derived from the atmosphere by inspiration, and the retention of a deleterious principle thrown off

by expiration during this period, when the portal of life is nearly closed, may account for the effects above described. But I do not mean to enter upon this extensive field of theory.

The third case of cynanche laryngea that occurred to me, was in a *cow-man*, living about two miles from Wisbech. I was requested to visit him in the night-time; and learned, that he had been attacked with pain in his throat, rigor, and fever, two days before. He was now in the last extremity; his countenance was swollen and livid; his eyes protruding and rolling; his voice raucous and indistinct; and his breathing indicating the speedy approach of suffocation. His throat had been blistered; and he had both used gargles, and inhaled the vapour of vinegar and water. Bronchotomy was the only expedient that could promise relief in this case; but in my circumstances I could not propose it. With that sympathy, which every one must feel who views this frightful malady without being able to relieve it, I left my poor patient, who expired in about three hours afterwards.

In a few days afterwards, a fourth case occurred, the subject of which was a drover, who had been exposed to cold on the outside of the mail-coach returning from London. He had been three or four days ill when I saw him. He complained of pain in the throat; and had rigors and pyrexia; deglutition was not totally obstructed, nor was his breathing so very laborious as in the preceding case. He coughed, only, when he attempted to swallow; he could extend his jaws, and protrude his tongue, which was a little furred. There was no enlargement of the tonsils, or uvula; but on pressing the tongue downwards and forwards, to look as far as possible into the throat, the epiglottis, which rose to transient view, appeared very red, and enlarged to the size of a moderately-sized cherry. This man was not bled at the commencement of his disease; but he had been purged freely, and his throat had been blistered and diligently gargled. I directed a large blister to be applied to his chest; and that he should take into his mouth, every hour or two, a powder consisting of borax and sugar, with half a grain of tartarized antimony. I thought him too much exhausted and feeble to be bled at that period, when suppuration had probably taken place in the larynx. This man lived three days after my visit.

Finding that these four cases, and some others that occurred about the same time, were considered by some of my medical brethren as fatal cases of cynanche tonsillaris, or cynanche trachealis, I took frequent occasion to point out what I conceived to be the characteristic differences of this form of cynanche; which was evidently produced by inflammation of the epiglottis or rima glottidis, or most probably of both of these

parts. It differed from cynanche tonsillaris in this: that the jaws could be fully extended, and the tongue protruded; that little or no swelling and inflammation appeared in the tonsils and uvula; in the presence of pain lower down in the throat; and more particularly in the alarming difficulty of breathing, threatening and terminating in suffocation. The disease could also readily be distinguished from cynanche trachealis, by its commencing, in every instance that had hitherto occurred, with pain in the throat, followed by rigors; by difficulty, or total inability to swallow, and by the absence of clangorous cough, in what may be termed the inflammatory stage. When cynanche laryngea terminates in suppuration, the difficulty of swallowing and pain are greatly alleviated: but I have observed, on more than one occasion, that, after the act of deglutition, a violent and suffocating cough is excited, followed by a copious expectoration of glary, purulent matter.

The nature and formidable character of this disease being now in some measure laid open to us, I determined, when an opportunity presented, to depend chiefly on the free and early use of the lancet.

In the winter of 1808, a medical friend of mine, who at that time had charge of the poor of this populous parish, requested me to visit a woman whom he had just left, and who, he conceived, was labouring under the affection upon the nature of which we had so frequently conversed. We immediately visited her. She was a tall spare woman, about forty years of age, had been exposed to cold, and had felt for some time a pain in her throat. She was seized a few hours before we saw her, whilst in bed, with a severe chill fit, followed by fever. She was, however, now sitting up, and was dressed, because, as she said, she could not lie in bed. Her respiration was very laborious, her voice hoarse and indistinct, and she felt pain in the throat, as if a rope was tightly bound round it. Her pulse was quick and feeble. We looked into her mouth; she could extend her jaws and thrust out her tongue with ease. The tonsils, uvula, and pharynx presented a dark red appearance; but were not swelled; her tongue was but little furred; her countenance was livid and swollen; and her eyes suffused with blood, and protruding. The attempt to swallow produced excruciating pain, and was altogether ineffectual.

This was a case of pure cynanche laryngea; and if bleeding could save our patient, we had a fair opportunity of putting its efficacy to the test, the disease having only commenced apparently a few hours previous to our visit. Our patient was therefore bled to the amount of sixteen ounces: she breathed easier, and was able to swallow some water immediately afterwards, but not without pain and coughing. An active saline purgative was now prescribed, with nauseating doses of antimony, and a

blister was applied to her chest. Several hours afterwards the difficulty of breathing and swallowing having greatly increased, a second copious bleeding, very judiciously practised by her usual medical attendant, again greatly relieved her. The dangerous symptoms speedily vanished, and she recovered perfectly in a very short time. The success attending this case in a great measure determined our future practice.

In the short space of three months in the spring of 1809, I saw six cases terminate favourably by pursuing a plan nearly similar to that just mentioned. About this time also I was called to a man, a small farmer, evidently labouring under this disease, who had no regular medical attendant. I recommended copious venesection, as he was a powerful man in the vigour of life. A feeble attempt was made to bleed him after I left him, but only a few ounces were abstracted; blisters and other means were used, but ineffectually, and he died after forty-eight hours of exquisite suffering, in the act of walking about in the open air.

Sir Gilbert Blane* mentions a variety of cynanche laryngea, consisting in chronic inflammation and suppuration, three cases of which had a fatal termination.

In the spring of 1809 I was called in to a farmer's wife, about forty-five years of age, and of a robust constitution, who was attacked with cynanche laryngea in its most acute and formidable form. She was bled twice very freely, blistered on the chest and back, and frequently took tartarized antimony, so as to produce full vomiting. This case terminated in suppuration; and, after the difficulty of breathing and swallowing were subdued, she remained for about a month in a very doubtful state, became much emaciated, had regular hectic exacerbations, and expectorated very largely purulent matter, especially by coughing, brought on by the act of deglutition. She finally recovered, and is now in good health.

In 1814 I was early consulted in another case, somewhat similar, but different in its termination. The patient was a woman upwards of sixty years of age, of a feeble habit of body. She was bled only once, but with great relief to the breathing. The first efforts to swallow were always succeeded by a violent fit of coughing, attended by a copious discharge of matter; and although for some days I had great hopes of her recovery, she died upon the twelfth day, with symptoms of effusion in the chest.

The last case of this disease, which came under my observation, occurred in a healthy young farmer. He had come to market on a cold, clear day, in November 1814, thinly cloathed, and without a great coat; and rode home in the

* *Medico-Chirurg. Trans.* vol. vi.

evening, a distance of about seven miles. Although he rode fast, yet he could not keep himself warm, and was seized with a severe rigor when he got home. He also felt his throat sore, and had much fever, with difficult respiration; and, soon after he went to bed, his breathing grew more and more laborious; he became alarmed, and sent before day-light for a young medical friend of mine, who bled him, and applied a blister to his throat. In the afternoon of the same day I accompanied my friend to visit him. This was as alarming a case as any I had hitherto witnessed in the early stage of the disease. Our patient was uncommonly restless, and constantly calling out, as well as he could, that he should be suffocated. His pulse was quick, but not full. He was again bled in both arms to a very considerable extent, which materially relieved him; and before we left his room he could swallow, which he had not been previously able to do for many hours, and his breathing was much relieved. A purging draught and large blister for the chest were then ordered; and a powder to be taken every hour, or every two hours, containing borax, sugar, and tartarized antimony, was directed to be laid upon the tongue, and gradually swallowed as it dissolved. This powder produced frequent nausea and retching during the night. The next morning we found the difficulty of breathing, and every other bad symptom almost gone; and in a day or two he was attending his usual occupations.

Such is the hasty and irregular sketch of my experience in this formidable disease. Of the twenty cases in which I have been more or less concerned, six died, and the rest recovered. If I should have to encounter the disease again, I will not direct the application of blisters to the throat, but substitute leeches in their place. My principal dependence is on copious and reiterated venesection; at the same time employing large blisters to the chest and between the shoulders, and exhibiting nauseating doses of emetic tartar combined with some neutral salt.

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## II.

*Cases illustrative of the Good Effects of Blood-letting in Epilepsy.* By W. Sweeting, F. L. S. Member of the Royal College of Surgeons, London, &c. Wells, Somersetshire.

There are no persons in any department of life more subject to trials and vexation, in the execution of their several duties, than Medical Practitioners. They are subject to the whim and caprice of every class of patients: and it too fre-

quently occurs, that the most illiterate pauper sits in judgment upon, and, full of fond conceit in his own fancied superiority, *condemns* their practice; because, perchance, it is opposed to prejudices, which time has in his view established as a law, like that of the Medes and Persians, fixed and unalterable. Whilst these things serve to *annoy;* the carelessness, inattention, and neglect of their advice, too prevalent amongst persons of every rank, *really mortify* and *afflict* them. The conduct of many individuals almost tempts us to suspect that their *first* object is to procure advice, and the *next* to disregard it.

However lightly such conduct may be esteemed by many, it will be found, upon a little reflection, to be both *unjust* and *cruel* towards the practitioner: *unjust*, as being injurious to his reputation, by which he can alone hope ultimately to succeed in his profession: for every instance of failure is readily charged upon *him;* whereas, if the real state of the case were fully known, the opprobrium would be fastened on the *patient* or his *friends:* and *cruel*, as it trifles with his feelings; which, far from being blunted by a constant intercourse with scenes of distress and misery, as is generally supposed, are, I believe, in many instances, rendered doubly sensible, by a continual anxiety for the welfare of the persons who may be committed to his care.

Nearly allied to neglect, is *obstinacy;* which has probably proved destructive in a much larger proportion.

It cannot, therefore, be too strongly impressed upon the mind of every man, that a relative duty, independent of a regard to his own welfare, exists between the patient and his medical adviser; for whilst it is incumbent on the one to exert himself to the very utmost of his abilities for the benefit of his patient—it is no less the bounden duty of the former strictly and implicitly to follow the advice, and comply with the wishes of the latter, as far as reason and experience sanction his opinion and practice.

These thoughts were suggested by the perusal of the fatal "Case of Apoplexy supervening on Epileptic Convulsions," as recorded in the *Repository* for January last. The previous history of this case, together with the dissection, illustrate the importance of the preceding observations. It is more than probable, that, had the prompt and decided measures recommended by the Gentleman's Medical Attendant been adopted in the early stage of his complaint, the awful consequences which ensued would have been averted.

In corroboration of this opinion, I am induced to publish the following cases, the first of which resembles that of Mr. F. as nearly as possible:

CASE I.

On the 12th of January 1816, at half-past eight in the morning, I was requested to visit William Bendal, who was represented to me to be in a dying state. He was 32 years of age; set made; short neck; dark complexion; addicted to occasional intoxication; and usually employed in agricultural pursuits.

After passing a very restless night, often getting out of bed in pursuit of some imaginary object, and talking very incoherently, as in delirium, he was seized at eight o'clock with a violent convulsion, which lasted a few minutes. Upon my arrival, I found him recovering from the violence of the paroxysm. He was lying in a comatose state, breathing stertorously, and foaming at the mouth. The pulse was very full and hard, beating 100 in a minute; the determination of blood to the head was very great; the carotid arteries throbbed violently; and the face was of a deep purple hue.

I took from him twenty-four ounces of blood, by measure, by a large orifice.

The bleeding relieved and revived him: he was in a short time sufficiently sensible to point to the head, as the chief seat of his pain. I ordered cold applications over the whole head, and a powerful dose of purgative medicine.

At half-past ten he was seized with a second attack. Being from home when the messenger who was sent for me came to my house, I did not see him until eleven; when he had sunk into a comatose state, the heart and arteries acting powerfully. I had recourse to the lancet, and removed another basin of blood, containing twenty-four fluid ounces. He again revived. Having given directions for his management, I left him; but had scarcely reached the door, when I was recalled, the fit having recurred. I had now an opportunity of witnessing the paroxysm through all its stages: its nature was too obvious to be mistaken. The countenance was suffused with blood; the veins of the neck, head, and arms, distended almost to bursting. As soon as the violence of the convulsion had subsided, I removed the bandage from the arm in which he had been bled a few minutes before, caused the blood to flow afresh, and at the same time opened a vein in the other arm. The pulse was full and hard, as if no blood had been taken away.

Thirty-two ounces were rapidly abstracted; the pulse sank; he again revived; and after a short time fell into a comatose state for half an hour.

Ordered a purgative enema, and a powerful mercurial cathartic.

Half-past four P. M.—Another paroxysm had occurred, but with diminished violence, succeeded by coma, as usual; and the

pulse full and hard. Sixteen ounces of blood were taken away: partial syncope supervened, which quickly passed upon his taking a little cold water, and being sprinkled with it. Upon his revival, he sunk into a gentle slumber, perfectly free from stertor.

Ordered an ounce of the solution of sulphate of magnesia every hour, until the bowels should be freely opened.

Eight o'clock P.M.—No recurrence of the convulsion has taken place; gives rational answers to any questions proposed to him; still comatose; complains of pain in the head; bowels not yet opened.

Repeat the purgative, and apply a large blister over the whole head.

January 13.—He has passed a quiet night, with some refreshing sleep; the bowels have been freely evacuated; complains of a slight pain in the head; pulse 80, rather full, but soft; finds himself weak; his intellects perfectly clear; experiences a sense of debility, or rather inability to use his limbs, in consequence of the violence of the convulsion, rather than any paralytic affection. He articulates clearly; the organs of vision and hearing are in no wise impaired.

Absolute rest and quietude were enjoined. He was ordered to subsist on tea, gruel, &c. and to take a febrifuge medicine every fourth hour.

This plan of treatment, together with a strict attention to the state of the bowels, was persevered in for the space of a fortnight; and at the end of three weeks he returned to his accustomed labour.

Previously to this illness, he had enjoyed a good state of health, and never before had any attack of the kind.

Unusual exertion was the exciting cause of his disorder. About a fortnight before he was attacked, he had followed the hounds on foot for several hours in the day: after which, he complained of a pain in the head, a throbbing at the temples, accompanied with giddiness, nausea, dimness of sight, and a sense of oppression at the precordia, occasioning a difficulty of breathing. Hoping that these symptoms would soon pass, he did not think of applying for medical assistance; the consequences were what has been described.

The exciting cause and subsequent symptoms display a striking similarity between Mr. F.'s case, and that of Bendal's; and there is every reason to fear that the result would have been equally fatal, had not the most energetic measures been adopted.

He is at this time (April 5th) perfectly well, having experienced no inconvenience from the attack, or suffered from the great loss of blood (ninety-six ounces) abstracted within the short space of eight hours.

CASE II.

—— H——, Esq. who had been long ill in consequence of a diseased liver and stomach, in the month of December 1815, without experiencing any increase of the symptoms of his disease, awoke suddenly in the middle of the night, with a distressing nausea, which was succeeded by a discharge of a wash-hand bason full of florid blood, by vomiting. He was much debilitated by this loss, but at length attained his usual state of health.

Having been under the care of the faculty at Bath and Cheltenham, he determined to place himself again under their guidance, and was on his road to Bath for that purpose.

He arrived at Wells on the 2d of January 1816, about six o'clock in the evening, in high spirits, and sat down to dinner, of which he partook with a good appetite. In the midst of the meal, however, he was seized with a fit, and fell from his chair. I was immediately sent for, and found him recovering, *apparently*, from a fainting fit. On seeing himself surrounded by strangers, he was considerably agitated; but in a short time became more calm. As I was in the act of administering some medicine I had brought with me, he was seized with the most violent epileptic convulsion I ever remember to have witnessed, the temporal arteries beating violently; and the countenance previously pallid, by the effects of disease, becoming very red, with a general tumefaction of the features, evidently indicated great determination of blood to the head. As I was on the point of bleeding him, my friend Dr. Carnegie, of this city, who had been called in, arrived, and urged the immediate prosecution of the operation. Accordingly, a vein was opened, and twenty ounces of blood abstracted by a large orifice. He was now sunk into a comatose state; from which, in about ten minutes, he recovered, and became collected, but was unable to give any information respecting the seat of his pain.

The arm had been scarcely tied up, when he was again dreadfully agitated, as by an universal spasm; and, like a person under the influence of insanity, attempted to tear himself from the hands of his attendants: this was followed by another paroxysm, more violent than the former. As soon as the convulsion had subsided, he again sunk into a comatose state, breathing stertorously as in apoplexy. The bandage was removed from the arm, and another vein opened, by which a further quantity (twenty ounces) of blood was taken away. The pulse, before hard and full, was gradually reduced, and the breathing freed from oppression.

On recovering from the coma, he displayed a restlessness of the most distressing kind. He appeared to be in extreme pain,

but was unable to direct us to the seat of it. At one time he sat down, as if in quest of ease from that position—then threw himself on the floor in an agony—then, starting up, walked with the rapid and unequal step of a poor maniac up and down the room, attempting to beat his head against the wall; from which he was with difficulty prevented by his attendants.—They who have ever seen a person writhing under the agonies produced by the passage of a large gall-stone through the ducts, or of a calculus through the ureter, can best form an idea of the restlessness and distress of this gentleman. I was so much struck with the similarity of the symptoms, that, for the time, I could not help suspecting that gall-stones were actually passing through the ducts; which suspicion was probably excited, as I had learnt that Mr. H. had suffered from a disease of the liver.

At length he became more sensible, and informed us that he suffered dreadfully in his head. The colour of the face was a dark-red or purple: it was determined, therefore, to open the temporal artery, and cup him at the nape of the neck; by which we calculated that he lost twenty ounces of blood. The remedies employed, although powerful, were imperiously called for, and were happily crowned with the desired effect. The pain in the head was relieved; and although exhausted, as well by the convulsions as by the remedies, our patient was tolerably comfortable. He had not, however, the most distant recollection of what had transpired during an interval of two hours and a half from the commencement of the fits.

Upon inquiry regarding the state of the bowels, we learnt that no evacuation had been procured for the last three days: the reason of which was, that Mr. H. had been in the daily expectation of going to Bath; but, being disappointed from day to day, had neglected to take the medicines which had been prescribed for the purpose of keeping the bowels in a regular state, being afraid of travelling under the influence of aperient medicine. To the constipated state of the bowels, added to the tendency which travelling in a close carriage has to determine the blood to the head, may be attributed the attack here recorded.

Mr. H. was ordered to take immediately a pill composed of calomel and cathartic extract, of each ten grains, to be followed up by a saline purgative every two hours, until the bowels should be fully and freely opened.

11 P.M.—Our patient having repaired to his bed, and having taken a little tea, fell asleep. This sleep was tranquil and refreshing, accompanied with a warm perspiration over the surface of the body. He is now perfectly free from pain in the head; but the bowels are not yet opened.

Repeat the cathartic.

The blood which had been drawn was covered with a buffy coat.

Jan. 3d.—Mr. H. had passed a comfortable night. The bowels had been freely evacuated in the course of the night; pulse 80, rather full, but soft and yielding; a gentle moisture over the skin; he is perfectly free from all pain in the head. On my asking if he felt debilitated from the bleeding, &c. he replied, that he was fully as strong as he was before he left home.

Ordered saline medicines, together with rest and quietude.

Evening.—He remained in bed until towards the evening, when he arose to have his bed made. He did not complain of weakness or of pain.

Repeat the calomel at night, and the purgative mixture in the morning.

Nothing worthy of remark occurred on the 4th. On the following day he proceeded to Bath, without sustaining any injury from the journey.

Mr. H., a few weeks since, in passing through Wells, stopped a short time at the inn at which he had been detained by his illness; and informed his host, upon inquiry being made as to the state of his health, "that the practitioners at Bath were of opinion, that the attack he had sustained was a mere trifle, and induced only by sitting with his back to the fire!!" Surely, so unqualified an assertion was extremely illiberal; and evidently proves that they were unacquainted with the real nature of the case! Let the profession judge between us, whether the case, as represented in this paper, did not require the most energetic treatment; and whether the success attending our exertions, is not of itself a convincing proof of the propriety of the measures which were adopted.

### Case III.

The following case of Epileptic Convulsions, which occurred in an advanced stage of pregnancy, and was successfully treated by the same means, is an important addition to those already recited.

On Saturday, November 18th, 1815, I was requested to visit Mrs. W. C——, who was awakened in the night by severe spasms in the chest, which completely deprived her of the power of utterance. She had been frequently subject to this loss of voice upon exposure to cold; but never to so great a degree as on the present attack.

In the early part of her life, she had enjoyed a comfortable share of health, with little interruption, until the year 1801. About this time she sprained her knee by a fall; a slight inflammation of the joint ensued; which was removed by rest, leeches, and topical applications: but considerable debility of the

joint succeeded; for which she was advised to try the effect of pumping on it. After employing this remedy a few days, she was attacked with severe spasms in the chest, which obliged her to desist. From this period her health declined; she became subject to hysteria, and a variety of nervous affections, from which she was never after free for any great length of time; on the contrary they were increased by a sedentary life.

In the year 1813, at the age of 32, she married, and was at this time in the last month of pregnancy with her first child. I gave her an antispasmodic medicine, which usually relieved her under the attack, and had now the desired effect. In the evening, at nine o'clock, I was sent for; at which time she was seized with severe epileptic convulsions: and at the same time I learnt, that at noon of the same day, she had been attacked with hysterical paroxysms.

The critical state of my patient led me to request the assistance of Dr. Carnegie. Shortly after his arrival she was seized with a second fit.

The contortions of the limbs were violent; and although naturally of a pale complexion, the countenance, during the continuance of the paroxysm, was suffused with blood, whilst the heart and arteries were acting powerfully. She was scarcely recovered from this attack, when a paroxysm of hysteria succeeded. As soon as we were able to keep the arm steady, thirty ounces of blood were taken away by a large orifice; after which a cold lotion was applied to the forehead and temples; and a large dose of calomel exhibited, followed by a saline aperient, repeated at short intervals until the bowels should be freely evacuated.

At midnight the pulse was full, but soft and yielding; pain in the head greatly relieved; no return of the fit. Repeat the aperient.

19th.—9 A M.—Our patient had passed a tranquil night, and slept a little; without any tendency to a return of the convulsions; the medicine produced three evacuations, dark, slimy, and highly offensive. Pulse 90, rather full: she does not complain of debility.

Repeat the aperient.

Ordered to subsist on gruel, tea, &c. &c.

7 P.M.—Since our last visit, she has had two evacuations similar to those passed in the night; the countenance is flushed; the determination of blood to the head increased, accompanied with much head-ache, and a sense of tension across the forehead. Pulse full, hard, 100 in the minute.

Repeated the venesection; by which twenty ounces of blood were abstracted.

Ordered a saline medicine, with small doses of antimony every third or fourth hour.

Mrs. C.'s recovery from this hour was gradual; nothing of importance occurred in the course of convalescence worthy of particular notice; no valuable purpose can therefore be answered by a minute detail of the symptoms which appeared each day;—suffice it to say, that after the second bleeding the head-ache ceased, together with every symptom indicative of a tendency to convulsion. Our object now was to restore the tone of the digestive organs, which had long been impaired, and to keep up a regular action of the intestinal canal. Great benefit was derived from the exhibition of small doses of the sulphate of zinc in combination with the extract of gentian.

By careful watching, and obviating every unfavourable symptom which might at any time appear, we had the satisfaction of conducting her to her full time, when she was safely delivered, after a labour of five hours, of a fine child, without the slightest tendency to convulsion, twenty-seven days after the attack.

This is an addition to the list of fortunate cases, in which, notwithstanding the violence of the symptoms, premature labour, with all its alarming consequences, was averted, by the decided measures employed; and is in no mean degree interesting, inasmuch as it affords further evidence, in confirmation of the propriety of copious blood-letting in convulsive diseases, in the latter months of pregnancy, without being deterred by a fear of subsequent debility. Recent experience has amply shewn, that even delicate women bear the loss of larger quantities of blood better than might have been, by mere reasoning, suspected. Mrs. C.'s is a case in point. During her pregnancy she appeared to be in so debilitated a state, that her friends were fearful that she could not live to the full time of gestation, or at most survive her delivery; but she suffered no inconvenience from the depletion: and since that time, to the present date, has enjoyed a better state of health than she had experienced for many years before.

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## III.

### *Account of a Case of Rabies in a Dog cured by Blood-letting.* By Henry Edmondston, A.M. Surgeon, Newcastle-on-Tyne.

I have great pleasure in presenting what I hope will be considered some important facts on the subject of *Rabies Canina.* Had they been deduced from my own experience, I should

have felt much less confidence in requesting a place for them in the *Medical Repository*. But they are the result of observations made by an individual of competent judgment, unwarped by medical prejudices or speculations, and who has had frequent opportunities of observing the symptoms of the disease in dogs for upwards of thirty-five years. On their correctness and authenticity, therefore, the most perfect reliance may be placed: they were obligingly communicated to me through the medium of Dr. Smith.

A gentleman of this neighbourhood, who keeps a pack of hounds, was alarmed, in the month of February 1814, by the appearance of disease in his kennel. One of the hounds (a bitch), which had been kept at quarters* in an adjacent village, was observed to exhibit symptoms of restlessness on going a short distance from, and returning to, the kennel. She was gentle with her master and the attendants, but bit several of the dogs in the kennel, where she had been confined previously to her master observing these symptoms.

It is necessary here to state, that in the beginning of December of the preceding year, a fatal case of hydrophobia, which occurred in the human subject, had occasioned a very great degree of agitation in the public mind; and a great number of dogs had in consequence been destroyed by order of the magistrates. This circumstance led the proprietor of the hounds to apprehend that rabies had found its way into the kennel. He, therefore, immediately adopted the most decisive measures for preventing it from spreading through the pack. All those dogs which shewed marks of having been bitten, were killed; but, notwithstanding this precaution, in the course of about seven or eight months, no less than nine or ten hounds had in succession, at different intervals of one month, six weeks, and two months, been attacked with rabies. They were all confined, and kept apart from the rest; and although a variety of remedies was employed, yet every one of them died of that disease. It was not till September or October of the same year, that the last case occurred, when it was hoped that the disease had been eradicated from the kennel.

Twelve months afterwards, in September 1815, rabies again made its appearance, shortly after the hounds had been collected into the kennel from their summer quarters. They

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* For those unacquainted with the language of the chase, it may be satisfactory to know that it is customary, during the intervals of the hunting season, to distribute a certain number of the pack amongst the farmers in the adjoining hamlets or villages. The hounds are then said to be in *quarter*, or *at walk*. A part of them, however, is occasionally retained in the kennel all the year.

quarrelled one night, and two were very severely bitten. Though the owner conceived that the biting might be in some measure accidental (possibly, from the rencounter of so great a number, some of them strangers), yet, calling to mind the mortality of the former year, he judged it prudent to have these two destroyed. Not many days elapsed, however, before a bitch which had been *at walk*, and which had hunted two or three times since her arrival, exhibited unequivocal symptoms of rabies; and from this period the disease continued as in the previous instance, showing itself amongst the dogs, at intervals of three, four, five, or more weeks, until last February. During this latter period of five months, *thirteen* of the pack had the disease; of which number *twelve* (together with three pointers) died, and *one hound recovered.*

From having sustained the loss of so great a number of valuable hounds, it may well be believed that the proprietor was prepared to try every means for the preservation of the remainder: and, as has been already observed, various plans had been adopted for this purpose, but without success. At last, he bethought himself of trying the effect of blood-letting in the disease; and accordingly had several of the hounds, as they fell ill, largely blooded. Calomel and James's Powders at the same time were administered, and blisters applied to the throat. But to his great disappointment, he found that, although the bleeding seemed to abate the violence of the symptoms, yet it was insufficient to arrest the progress of the disease. This he attributed to the late period at which the blood-letting had hitherto been employed; and, therefore, although discouraged by repeated failures, he nevertheless determined to persevere: but, if possible, to commence the use of the remedy at a much earlier stage of the disorder in the next case that should occur. An opportunity presented itself in January last. A fine healthy dog, six or seven years old, though apparently well the evening before, was observed early in the morning to have something very peculiar in his manner; and on trying him with food, he was found desirous of eating, but unable to swallow. On a closer examination, the owner ascertained that he had all the incipient characteristic symptoms of rabies. He had him immediately bled to a much greater extent than any of the others had been; in fact, the bleeding was continued until the animal nearly *fainted*, and *fell down*. Five grains of calomel, and ten of James's Powder, were also given*. As he seemed faint and

* It is proper to observe that the general effect of these remedies was purging, and frequently vomiting. A great quantity of flowers of sulphur, likewise, was used in the hounds' ordinary food, to keep them cool and open; but not on the day before hunting, for fear of cold or wet.

much reduced by the bleeding, he was not blistered till the evening; when a severe blister, reaching from the fore-part of the throat to the breast was applied. He appeared much exhausted by the bleeding and the other remedies: but soon, however, regained his appetite and strength, without the use of any more remedies, or the intervention of any untoward symptom. Still it was thought advisable to keep him chiefly on milk diet for a week or ten days, with very little, if any, animal food during that time.

Two other dogs have since had the disease: but unluckily it had arrived at a more advanced stage before it was detected; and although similar means were used, they proved ineffectual.

Some of those that died were dissected. The throat and gullet were found of a *dark red* colour, which about the cardia became, as the owner very emphatically terms it, of a *gangrenous green*. Their throats, while alive, were all much swelled. The one that recovered appeared to have much less of this fulness of the throat. All of them lapped milk or water very readily: indeed, they evinced an eagerness for fluids, and would often continue lapping for the space of half an hour, without being able to get a drop over. This the proprietor thinks arose from inability to accomplish the movement of the jaw necessary to deglutition; for he remarked, that when irritated, they were able enough to bite.

Upon the whole, the impression which remains on the gentleman's mind, from what he observed, is, that, if taken in time, the disease in dogs is curable by blood-letting: but the great difficulty is in ascertaining its presence sufficiently early. Among his hounds, a dog was often, to all appearance, well enough at night; yet, by the following morning, at the usual hours of feeding, the disease seemed to have so established itself, as to defeat all the attempts made to cure it*.

The precautions used in administering the remedies were simple, easy, and effectual, and are worthy of being generally adopted. The dog's ears were cautiously seized upon from behind; and his lower jaw and forefeet were then laid hold of; in which condition, the mouth was easily opened, and the medicines being mixed up with butter, were placed upon the end of a stick, and pushed gently down the throat. In order to

* The night here meant, comprehends from dusk till about eight or nine o'clock next morning; and may, therefore, according to the season of the year, vary from twelve to sixteen hours; a space, which, though in itself short, is of no ordinary duration in rabies, in which, when compared with most other diseases, hours may be said, without any great departure from truth, to be equivalent in importance to days.

prevent licking or scratching during the blistering and bleeding, the hind feet were tied together, and the jaws closely strapped. The dog was then laid in a comfortable litter of straw, and chained to the wall with a strong chain, having a range of two yards, or thereabouts. The separation of the sick from the healthy dogs, was effected by putting a pair of couples on with two chains, and two persons, in opposite directions leading them to prevent their biting.

On the foregoing facts, which speak so intelligibly for themselves, it is quite needless for me to offer a single comment. I shall therefore content myself with barely noticing, that amongst the many instructive inferences which they suggest, it must to every one be a subject of satisfaction to observe, that from an analogy complete in all its parts, and drawn, too, from the very tribe of animals in which rabies originates, we derive additional encouragement to persevere in the practice so successfully revived by Mr. Tymon and Dr. Shoolbred. The necessity is enforced (a necessity that perhaps can never be too strongly insisted on) of early and plentiful venesection in the human subject when labouring under hydrophobia.

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## IV.

*Case of Hernia Congenita Scrotalis.* By Christopher Clough, Surgeon-Apothecary, South Shields.

On Tuesday, Feb. 27, 1816, at 4 o'clock P.M. at Preston, a village about a mile from North Shields, I visited Thomas Douglas, an apprentice to Mr. Haddon, ship-owner, ætat. 18, and found him labouring under strangulated hernia. His mother informed me that he was ruptured from his birth, but never before had complained of any inconvenience from it. He had suffered, she said, the greatest pain since Sunday morning, the 25th instant, from what she called the windy gravel. On the following morning she applied to my assistant, who gave something according to her direction, but did not see the patient.

I found him in the most distressing condition; his pulse was thread-like, and so quick, it could scarcely be counted; with vomiting and slight tension of the abdomen. I immediately opened a vein in each arm, and suddenly abstracted 30 oz. of blood; when his pulse became more full and distinct; the bleeding produced a complete syncope. I gently applied the taxis, without producing the least benefit. I then had recourse to a stream of cold water poured from a tea-kettle spout, for a considerable time, on the tumour, and over the region of the

abdomen; and again repeated my efforts without any advantage; I therefore ordered about ℥iss. of strong shag tobacco to be infused in a pint of boiling water, and the infusion to be administered as a glyster as soon as possible; and cold applications to be applied to the tumour. I left directions with my assistant to wait the effects of the tobacco-glyster. Although no alteration during his stay had been produced, yet he thought the patient easier.

On the 26th, about 6 A.M. the patient was in a most alarming condition; his pulse at the wrist scarcely perceivable; there was incessant vomiting; and the integuments over the tumour were slightly discoloured. His mother had omitted to apply the cold applications.

I was satisfied that nothing could save my patient but the operation for strangulated hernia; and, as soon as convenient, I called a consultation of Dr. Greenhow, his son Mr. Edward Greenhow, and Mr. Andrew Trotter, a Surgeon of North Shields, who very politely attended with me; and who, after carefully examining the tumour, thought the operation should be immediately performed; but at the same time observed, that the pulse at the wrist was not to be felt.

At 11 A.M. after the patient had been placed in a proper situation. I commenced the operation, and, I must confess, with very faint hopes of success. On making an incision the whole length of the tumour, and laying bare the sac, I endeavoured to pinch it up, and carefully dissect until I had procured a small opening. On further examination this proved to be the tunica vaginalis testis, which on being laid open, discovered the testicle and a portion of highly-diseased omentum; and below, without the abdominal ring, lay a portion of intestine extremely livid. After dissecting off the whole of the diseased omentum, I dilated the femoral ring with a blunt-pointed bistoury, about an inch in length; first carefully insinuating my little finger, and then the fore-finger as a director. The protruded intestine was now easily returned, although I could discover within the abdominal ring considerable adhesions of the peritoneal coat and intestine, but which offered no obstruction to its reduction.

No blood-vessel of any consequence being wounded, not more than half an ounce of blood was lost during the whole of the operation.

The wound was then closed with common sutures and adhesive straps, and the patient was dressed and put to bed, almost in a lifeless state. As soon as a common cathartic glyster could be procured it was administered, and produced considerable rumbling in his bowels, but no real stool. His faintness continuing, I was induced to order him a small cordial anodyne

draught, which relieved him much, and his pulse gradually improved. At 10 P.M. I ordered the glyster to be repeated, with the addition of Ol. Ricini f℥iss. which soon after produced a most copious and natural stool, and gave great relief. I ordered him a low diet.

Early in the morning of the 29th, I found him in all respects greatly improved; his pulse was 120; the heat of the skin moderate; the tension of the abdomen less; and his countenance much better; but he complained of a teazing cough, which had distressed him much when he was operated upon. I ordered him a saline mixture with a few drops of tinct. opii, and glysters composed of fat mutton broth to be injected twice or thrice in the twenty-four hours. The wound appeared hot and stiff: I therefore directed the Aqua Litharg. Acet. Comp. to be frequently applied over the dressing.

March 1st.—He was gradually improving; his skin cool, and tongue moist. He has had two natural stools. The glysters and spare diet to be continued.

2d.—Pulse 72; skin natural; tongue nearly natural. The glysters were continued.

3d.—Pulse 72; skin moist. He has had a natural and rather costive stool; his cough is troublesome; the wound is healthy, with a good discharge of pus. Ordered him to continue his saline mixture with tinct. opii. and broth glysters.

4th.—Ordered a cathartic glyster as before, which produced three copious stools; skin and tongue quite natural.

5th.—The wound healthy, and a good discharge; his appetite excellent, but he was not allowed any solid food.

6th, 7th, 8th, and 9th.—He required no other attention, except dressing the wound, which is nearly closed; strength much improved.

16th.—Discharged cured.

REMARKS.

This case of hernia congenita scrotalis presented, in my opinion, to the operator, some degree of difficulty which common strangulations do not; for on introducing my finger within the abdominal ring, about two or three inches up, I could plainly distinguish, as before mentioned, adhesions of the peritoneal coat and intestine, which I did not attempt to remove, as the intestine was easily reduced without the further use of the knife.

From the result of this case, I am persuaded considerable mischief is produced by long and continued efforts to reduce the strangulated parts by the taxis; that the protruded intestine suffers much from fingering when in a high state of inflammation, and when useless efforts to relieve the patient are persisted in. Hence I attribute the favourable result of this

truly distressing case to little or no force having been used, nor any long continued efforts to reduce it.

If an attempt to have reduced the contents of the sac had proved successful, would not the omentum, which was in a highly diseased state when returned within the abdominal ring, and lying in contact with the already-inflamed intestine, have increased the tendency to gangrene of the intestine, and have produced death?

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## V.

*A Case of Lumbar Abscess; with the Examination of the Body post mortem.*—By ——— Knox, M.D. Hospital Assistant, Hilsea.

Jonathan Robson, ætat. 31, was at first brought into the hospital at Hilsea on the 2d of January, and treated for chronic rheumatism; but a minute examination shewing his case to be very different, he was transferred to the surgical wards, on the 14th of the same month.

The history of his disease, collected from the patient himself, is rather confused as to dates; but the present appearances bear out his other statements. He appears originally to have had a collection of matter in the right groin, preceded by nearly the same symptoms under which he at present labours; and which are about to be detailed. This collection of matter, or lumbar abscess, wast reated apparently on the plan pointed out by Mr. Abernethy; the puncture, however, did not unite by the first intention, and no bad consequences followed; and from this attack, he says, he completely recovered. At present he complains of violent pains in his back and left thigh, extending to the knee; and inability to move the limb of this side. The knee is kept constantly bent. The pain of the back extends also to the left of the spine, and nearly over the last rib. He lies constantly on his back. On examination, it was found that the three last dorsal vertebræ projected considerably; the spine itself was slightly incurvated, and there were the marks of former sores over the sacrum and right *os ileum*. At present he is somewhat feverish, and no benefit has been derived from a blister, which was applied on the 14th.

17th.—Let a large issue be formed by the potassa fusa on the left of the spine. Let the bowels be opened.

28th.—The pains are less severe. He complains much of a load at his stomach, his feet are cold, and the left thigh greatly swelled, without any appearance of pointing; the pulse is very weak.

℞ Opii gr. ii. hora somni sumend.

Let him be put on a spare diet.

Feb. 4th—He has brought up by coughing a great quantity of brownish matter, evidently purulent. The pulse is very weak. The cough by which he brings up the matter began last night, and is not at all violent. The issue was ordered to be continued; but he expired suddenly during the night.

SECTIO CADAVERIS.

1. On laying open the *thorax*, nothing particular was at first observed. The incision was extended to the left *os ileum*. A large abscess was now opened into, situated behind the peritonæum, and in the left lumbar region. The colon and omentum adhered for some way to the peritoneal covering of the abscess. The large intestines were opened throughout a very great extent, and were found full of fœculent matter, but no pus was observed. The abscess contained about two quarts of purulent matter, and extended downwards into the thigh, following the course of the psoæ muscles. Entirely confined to the left side of the spine, it proceeded upwards as far as the diaphragm, which at this place was perforated by ulceration. The abscess now communicated with the lower lobe of the left lung, which adhered very firmly to the diaphragm. A great part of this lobe was in a state of ulceration, and contained much purulent matter. No pus had escaped into the cavity of the pleura. The lungs were now examined with a reference to the course of the matter; the bronchial tubes of the left lung, particularly of the lower lobe, and the trachea itself, as high as the epiglottis, were filled with pus. The texture of the lungs, with the exception of the lobe specified above, was quite natural. The *psoæ* and *iliaci interni* muscles of the left side were nearly destroyed; what remained of them was hard as cartilage, and not unlike that substance. The tenth rib was carious; the twelfth must have been entirely absorbed, as no traces of it could be found.

2. The bodies of the last dorsal and the whole of the lumbar vertebræ were larger than natural, but their texture was healthy. Absorption of some of the intervertebral cartilages had commenced. The curvature of the spine did not appear, so far as regards mechanical pressure, to have influenced in any way the functions of the medulla spinalis. This organ was natural throughout its whole extent.

3. On the right side of the spine the psoæ iliaci muscles were much altered; hardened in their structure, and diminished in their size. They had evidently suffered from a similar cause to that which had so nearly destroyed those on the left side.

## V.

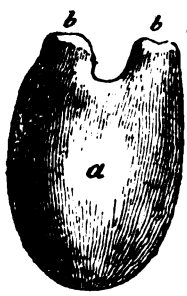
### *Case of Lithotomy, attended with some uncommon Circumstances.*

By Michael Mabey, Member of the Royal College of Surgeons, and Surgeon to the Forces, Colchester.

Edward Aldridge, a private of the 2nd battalion of the 73d regiment, aged 26 years, was admitted on the 1st of February, from the Regimental Hospital into the General Hospital at Colchester, with a disease of the bladder.—The urine was freely voided; but on being left to settle, it uniformly deposited a very considerable quantity of thick mucus. As several of the usual symptoms of stone, however, were not present, he remained some time without having been sounded: at length the trial was made, and a stone discovered.

The operation being determined on, was undertaken on the 5th of February. The first part of it was easily got through; but the extraction proved extremely difficult, affording a case, both in itself uncommon in military practice, and perhaps also quite new; as the stone, in shape and size (as per margin), grew like a trunk of coral from the fundus of the bladder, to which it was firmly attached. After the incision it could not be discovered for some time in any direction; but the finger being introduced, it was found attached as above. As the usual instruments of extraction proved inefficacious, a pair of bullet forceps were procured; and these having been introduced, by means of their curved extremities, the pedicils were broken down and the stone removed.

In consequence of the difficulty of extracting the stone, and the tediousness of the operation, the patient was freely bled after being dressed; and the usual antiphlogistic treatment being pursued until the 12th of March, the wound healed, and his health was gradually re-established.




DESCRIPTION OF THE DIAGRAM*.

*a* the body of the stone, resembling the heart of a fowl. *b b* The cornua or pedicils, which were attached to the fundus of the bladder.

* The drawing was so rudely executed that our readers must regard the outline only of this diagram as accurate. When practitioners cannot draw, and yet require to illustrate their cases by drawings, it would be rendering their communications more justice, and our Journal more credit, were they to procure some properly qualified person to make the drawings for them.—Editors.

## AUTHENTICATED CASES, OBSERVATIONS, AND DISSECTIONS.

### XIX.—*Case of Intus Susceptio.*

WILLIAM NORTH, ætat. 44, a coachman, who had been accustomed to live freely, and was occasionally subject to costiveness, was, at a time when his bowels had not been evacuated for four days, seized with a violent pain in the epigastric region: in this state the Reporter found him, April the 2d. He had also a slight degree of fever, with his pulse 96, and hard and strong. He was immediately put into a tepid bath; a pill containing six grains of submuriate of mercury was given, and a purging mixture with senna ordered to be continued every two hours until the bowels were opened.

April 3d.—He has taken six doses of the mixture besides the pill, without any effect.

Enema purgans statim injiciendum, et post horas quatuor repetendum, si non alvus prius dejecerit.

℞. Magnesiæ Sulphatis ℥ij.
Infusi Rosæ, f℥xij. Misce. Coch. duo omni horâ sumenda.

Repetetur Balneum.

4th.—No evacuation. Pain continues. Pulse 108. He vomited after taking the two last doses of the mixture.

Mittantur sanguinis e brachio ℥xij.

℞. Hydrargyri Submuriatis, gr. xij.
Pulveris Rhæi, ʒss.
Aquæ q. s. ut ft. Pilulæ quatuor, statim sumendæ.

℞. Magnesiæ Sulphatis, ℥ij.
Aq. Menthæ Virid. f℥xj. Misce. Capt. cochl. ij. omni horâ.

Eight P.M.—No evacuation; but the pain is much relieved, and he retains the medicines on his stomach.

Repetetur enema purgans tertia quaque horâ.

5th.—Four injections have been given without effect; but he retains the medicines, and is quite free from pain.

Repetentur balneum, enemata, et mistura.

6th.—Passed a quiet night, free from pain; has had several times an inclination to void fæces; but the injection only returned. The pain has much increased this morning, and indeed is rather violent; since breakfast he has vomited feculent matter. Pulse 110, and full.

Eight A.M.—Repetetur v. s. ad ℥x.

1 P.M.—No evacuation, and the pain is great. With much difficulty, about six pints of salt and water were injected, which

were retained for about half an hour. It was then voided without any fæces; but he said he thought by his feelings he should soon have a motion, something in his inside (to use his own phrase) having been let loose.

Persistat in usu misturæ.

Seven P.M.—No evacuation. After again using the warm-bath, he voided a most copious black stool. He felt immediately relieved, and begged to be put into bed, which was complied with, and the following draught given.

℞. Magnesiæ Sulphatis ʒss.
Aq. Menthæ f℥iss.
Sp. Lavandulæ Comp. fʒss. Misce. Ft. haustus, statim sumendus.

7th.—He has had four stools during the night, slept well, and is perfectly easy this morning. From this time, by persisting in the use of light tonics, with the sulphate of magnesia, he recovered.

The Reporter regarded this case on the 5th day as a case of *intus susceptio;* and that opinion determined him to have recourse to the large quantity of salt and water; which happily was attended, in this instance, with as much advantage to the patient as satisfaction to the practitioner.

## XX.—*Case of Tape-worm cured by Spirit of Turpentine.*

The patient, a young woman, had been subject to this species of worm for four years; and had voided small pieces at different periods. She had been under treatment for a syphilitic complaint, from which she soon recovered, but without using much mercury either internally or externally. It may be observed, that she did not void any pieces of worm during the time she was under the influence of the mercury.

Four or five days, however, previous to her being discharged as cured of syphilis, she complained of sickness, fainting, and a sensation of twisting of her bowels, accompanied with tenesmus, and evacuated some pieces of the worm. An emetic, and a variety of vermifuge medicines, were administered; which were followed by warm bitter purgatives: this course brought away a few more pieces. Still she complained of twisting, considerable pain, and sickness. All other medicines were now laid aside; and a tea-spoonful of spirits of turpentine was given every four hours blended with mucilage and syrup of Tolu: after taking four doses of which she expelled a prodigious quantity of pieces, and the following day a worm two yards and three quarters long. Since which she has been perfectly easy; and not having passed any more of the worms, she considers herself well.

As it does not appear that she passed any portion of worm whilst she was using mercury, it is, I think, fair to attribute the expulsion of them to the turpentine.

## XXI.—*A Case of Carbunculus.*

A LADY, 70 years of age, of a delicate frame and temperate habits, complained of a pain at the back of her neck, with great constitutional derangement. On inspection, there was discovered on the nape of the neck a purple-coloured spot, rather elevated, which spread so rapidly, as in fourteen days to occupy a considerable space. At this time the Reporter was requested to visit her; and found the integuments and subjacent cellular membrane sphacelated from the first vertebra of the neck to the second of the back by three inches in width, encircled by erythematic inflammation. The pulse was 120, and weak; the countenance pale and dejected; the tongue covered with a brown fur, but moist; and the head light and wavering. To rouse the powers of life, he ordered her a draught, with the decoctum cinchonæ, confectio aromatica, and spiritus ammoniæ aromaticus, every four hours; with generous diet, table ale, and a moderate portion of wine. As the digestive organs were much impaired, the quantities of nutriment were given in such portions and intervals as not to produce oppression. To aid the separation of the diseased skin, and check its further progress, the part was fomented with a strong decoction of aromatic herbs, and afterwards covered with stale beer poultices. By these means, sedulously pursued, an improvement took place in her health, while a line of separation appeared round the sphacelated part. In a few days more the sloughs were so far detached, as to allow of removal by the knife. A fetid pus was discharged in large quantity. After the detachment of the sloughs, the sore displayed a healthy appearance; but was so irritable, that it could scarcely bear the slightest covering. To soothe this uneasiness, the surface was dressed with fine lint dipped in almond oil and lime-water. In a few days granulations appeared, and many parts of the edges adhered, which before were loose and unattached. So soon as pressure could be applied without giving pain, adhesive slips were used to approximate the edges, and lessen the diameter of the sore. These had the desired effect; for the skinning process commenced, rapidly advanced, and was shortly completed.

## XXII.—*Case of Pleurisy.*

A. G. ætat. 40, of a robust make and sanguine complexion, by trade a publican, was attacked with shivering, succeeded by

great heat of skin, pains of the joints, head-ache, and a bitter taste in the mouth. He took an emetic and a purgative; both of which brought away a considerable quantity of bile. When the Reporter saw him, on the following day, he complained of pain of the left side; had a short, dry cough, and some difficulty of breathing. His pulse was hard, and 120; his tongue furred; and the urine, although not scanty, yet very high-coloured. He did not complain of much thirst.

Sixteen ounces of blood were taken from the arm, and he was ordered to take a demulcent mixture, with six drops of tincture of squills in each dose.

He felt easier after the bleeding; but as the pain continued, in the evening sixteen ounces more of blood were taken away, and a blister applied to the chest.

On the following day he was bled three times, sixteen ounces being taken each time, and twenty ounces more on the third morning; after which the pulse continued at 80, was much softer, and the pain almost gone. He had had no sleep, and in the evening of this day became very restless and apprehensive of himself. The dyspnœa, attended with hiccough, increased so much, that he could not lie down: another blister was therefore applied; and as his pulse continued soft, and only 70, an opiate was given at bed-time. It, however, did not procure sleep; and he expired at two o'clock on the fourth morning. During the course of the disease, the bowels continued open; and the flow of the urine was free.

*Dissection.*—On opening the thorax, a considerable quantity of greenish serous fluid was observed in the left cavity, between the pleura costalis and the lungs; which, when taken up with a sponge, and squeezed into a vessel, measured fourteen fluid ounces. The pleura costalis, extending from the fifth rib to the bottom of the cavity of the thorax, appeared thickly covered with papulæ, like goose-skin, florid, red, and rough to the feeling of the finger; the small spaces betwixt the red points had the appearance of blueish, rough, ground glass; and, at the lower part of the cavity, about a table spoonful of pus was deposited, but no ulceration appeared. The surface of the lungs was covered with the same kind of red points as the pleura on the ribs, as was also the upper surface of the diaphragm, extending round five inches from its attachment to the short ribs, towards the top of the convexity. The thin lower edge of the lung, and the corresponding part of the pleura, and surface of the diaphragm was spread with a whitish, viscid, reticulated membrane. No adhesion had taken place. The substance of the lungs was sound throughout, and there was not the smallest appearance of disease in the right cavity

of the chest. The pericardium and heart appeared also perfectly sound, as did all the abdominal viscera.

From the above dissection it appeared probable, that much benefit might have been obtained by local bleeding, either by means of leeches or cupping.

*** The case, in our last Number, p. 361, intitled "Case of Gun-shot Fracture of the Neck and Head of the Humerus, &c. &c," communicated to us by a friend of the author, should have been given as the paper of Mr. JOHN KENNEDY, Assistant-Surgeon 1st Ceylon Regiment, then of the 41st Foot, and acting as Surgeon of the Marine Establishment in Lake Erie, Upper Canada. The mistake of putting *Ramsay* instead of *Kennedy*, arose from the title of the paper having been omitted by the author; and our reading the name, as written in the note which accompanied it—*Ramsay*.

# PART II.

## ANALYTICAL REVIEW.

### I.

*A Treatise on the Diseases of Arteries and Veins, containing the Pathology and Treatment of Aneurisms and Wounded Arteries.* By JOSEPH HODGSON, Member of the Royal College of Surgeons in London. 8vo. pp. 603. London, 1815. Underwood.

*Engravings intended to illustrate some of the Diseases of Arteries, accompanied with Explanations.* By the same. 4to. pp. 27. London, 1815.

THE writer of a large volume upon any particular branch of science generally gratifies himself at the expense of the public, by studying to be prolix, and introducing much unprofitable discussion. The subject of Mr. Hodgson's Treatise is fortunately chosen so as to absolve him from any charge of this sort. With a tolerable proportion of original matter, and much compilation, he has filled an octavo volume, large as it is, with good and valuable materials. To all parts of it however, it will be unnecessary for us to give an equal degree of attention; our object shall be to present our readers what is most important, or not elsewhere to be met with; at the same time, that we offer to the author such suggestions and remarks as have occurred to us during the perusal of his work.

Arteries being composed of blood-vessels, nerves, and absorbents, are liable to the same morbid alterations, and endowed with the same powers of reparation, as soft parts in general;

their coats inflame, and pass through the different stages of adhesion, suppuration, or gangrene, in the same manner as the skin, a gland, or a muscle.

The internal coat of an artery, Mr. Hodgson observes, bears a striking analogy to serous membranes, in its tendency to assume the *adhesive inflammation;* and this property is in blood-vessels, as in all organs, the first agent of reparation in injuries from accident or disease. The inflammation which is excited by the wound or division of an artery, produces an effusion of lymph which seals the extremity of the vessel, and extending to the external coat, becomes the basis of adhesion and final obliteration. A punctured artery is united by the same adhesive process which repairs wounds in general; and if irritation be excited in the coats of an artery by pressure, adhesive inflammation is the consequence, lymph is effused into the cavity and into the cellular substance connecting the coats of the vessel, its sides coalesce, and it is rendered impervious. The same adhesive process frequently prevents hæmorrhage, where abscesses or extensive ulcerations exist in the neighbourhood of large vessels, the inflammation which precedes the suppuration having produced an effusion of lymph between the coats and into the cavity of the arteries, whereby it is obliterated. But the most perfect demonstration of the effects of *acute inflammation* upon the internal coat of an artery, Mr. Hodgson thinks, is to be met with in cases where the disease appears to have extended to the vessel from contiguous parts; and the following instance communicated to the author by Dr. Farre, is adduced in illustration of it:

"A man who had recently returned from Jamaica, where he had been severely afflicted with dysentery, was attacked with violent pneumonia, which destroyed him in the course of five days. The cavities of the pleura were found to contain much lymph and serum. The pericardium was covered with lymph. The cells of the lungs were filled with bloody serum, and the bronchia were highly inflamed. All the thoracic viscera exhibited the effects of the highest degree of acute inflammation, which had extended also to the aorta, the internal coat of which was of a deep red colour, and a considerable effusion of lymph had taken place into its cavity. The effused lymph was very intimately connected with the internal coat of the vessel, and a plug of it had extended into the left subclavian artery, and nearly obliterated the cavity of that vessel."—p. 5.

Mr. Hodgson has observed a similar state of the great blood vessels in a less degree, from carditis, pneumonia, and bronchitis. In one instance, the aorta was throughout of a deep scarlet colour; the posterior mediastinum was gorged with serum; and a little above the semilunar valves, the cellular membrane which connects the coats of the aorta was dis-

tended with lymph. Granulations or fungous growths, which are not unfrequently met with at the origin of the aorta, upon the semilunar valves or in the cavities of the heart, are said sometimes to originate in the lymph thus effused upon the internal or lining membrane. The inflammation excited in an artery of the extremities by the application of a ligature, has been known to extend along the internal coat of the vessel even to the heart itself. Mr. Hodgson, however, has not detailed the cases in which he has found this appearance; nor has he inquired what symptoms accompany these effects of a ligature on an artery, nor what share they have in producing death.

*Chronic inflammation*, according to the author, is generally to be observed in thickened and calcareous arteries, particularly in aneurismal subjects.

"The internal coat of the vessel is soft, thickened, of a deep-red colour, which is not uniform, but irregularly disposed in the vicinity of ulcerations, thickenings, or calcareous depositions."—p. 9.

Mr. Hodgson, we conceive, is not sufficiently accurate and clear in his distinctions of *ulceration* of arteries. It may commence in an artery, or extend to it from surrounding parts. In the former instance it is always found first on the internal coat, and is generally preceded by some other morbid change of the vessel. Thus it is not unfrequently met with around the circumference of calcareous, or upon the surface (not in the centre) of atheromatous depositions; and aneurism is, without doubt, occasionally a consequence of such ulceration, the coats of the vessels being completely destroyed by it, and the blood escaping into the surrounding cellular substance, which becomes gradually expanded into a sac. Hæmorrhage is often caused by ulceration extending from surrounding parts to the coats of arteries, as in cancerous and phagedenic ulcers; but as far as our information goes, proofs are much needed to justify the assertion of the author, that many passive hæmorrhages are produced by ulceration commencing on the inner surface of arteries. We know of no instances where either hæmatemesis or hemoptysis have originated from such a cause; they may however arise from the extension of ulceration to arteries from neighbouring surfaces, as happened in the interesting case mentioned by the author, (page 11,) of extensive ulceration of the stomach, *which penetrated the coronary artery of that organ*, and *gave rise to a fatal hæmatemesis*. We copy a striking example of vomicæ giving rise to a fatal hæmorrhage, by exposure of a branch of the pulmonary artery.

"A man of phthisical habit had for some time complained of cough and difficulty of breathing. In this state he was suddenly

seized with pain in the left side, which rendered his breathing very laborious. He was unable to lie on his right side, his countenance pale and deathlike, and his pulse weak and quick. He continued in this state two days, at the end of which he died. The left side of the thorax was found to contain about a quart of coagulated blood. The lungs contained numerous vomicæ, into one of which a considerable branch of the pulmonary artery opened. This vomica had burst into the cavity of the thorax, and from this source had proceeded the hæmorrhage. The aorta was thickened, and covered with calcareous depositions."—p. 12.

*Sphacelation* of arteries in consequence of inflammation of their internal coat, has nothitherto been observed. Arteries, however are often included in extensive sloughing of parts, in which case the blood generally coagulates in the vessels to a considerable extent above the line of sphacelation, which prevents the accession of hæmorrhage on the separation of the slough. The coagulum is afterwards absorbed, and the vessel obliterated.

After having considered the inflammation of arteries, and its effects, Mr. Hodgson treats of *various morbid appearances*, to which the coats of arteries are liable in consequence of their peculiar structure and functions.

1. The internal coat of arteries is sometimes thickened and converted into a substance resembling cartilage, or the thickened peritoneum of an old herniary sac. This disease is confined to the internal coat, which, having lost its elasticity, sometimes cracks, and forms scales that hang into the cavity of the vessel. Calcareous depositions often accompany this alteration of structure, and the surrounding parts of the membrane generally exhibit signs of chronic inflammation. The semilunar valves of the aorta are not unfrequently changed into a dense fibrous structure, resembling ligament or tendon; sometimes they are converted into cartilage, and are manifestly incompetent to their office as valves. In several specimens, the author has observed them to be ruptured, and form cartilaginous eminences on the sides of the vessel.

2. The internal surface of arteries exhibits frequently a thickened and pulpy structure, sometimes with the appearance of small flattened tubercles, at others with an irregular and somewhat fleshy appearance over the whole surface. This disease is confined to the internal coat, and is often found in aneurismal subjects.

3. A deposition of atheromatous, or purulent matter in the cellular membrane which connects the internal and middle coats of the vessel. The diseased part is of an opaque yellow colour, sometimes extensive and considerably elevated above the surrounding surface, at others circumscribed and having a pustular or tuberculated appearance. If punctured, matter

may be pressed from underneath the internal coat, varying in consistency from that of cheese or of common pus. The author has observed the emulgent and femoral arteries in the same subject quite obstructed by the accumulation of this curdy matter.

4. Peculiar fungous or wart-like excrescences, which have been observed on the semilunar valves of the aorta and pulmonary artery, and also upon the mitral and tricuspid valves. These are of rare occurrence. Corvisart believes them to be syphilitic; but Mr. Hodgson relates a case where the absence of that disease throughout the whole of life made it impossible that they could have arisen from that cause. This case is rendered unique by the femoral artery and the origin of the profunda being completely obstructed by a fungous growth similar to what were found upon the semilunar valves of the aorta.

5. Deposition of calcareous matter in the coats of arteries. This so frequently happens in old age, that Bichât was tempted to regard it as a natural phenomena rather than a disease. The incrustation seems to commence in the substance of the internal coat, a delicate *pellicle* (as Bichât first termed it) covering it, and separating it from the blood passing through the cavity of the vessel. Sometimes this pellicle is deficient, or hangs into the cavity of the vessel, and the blood is in contact with the calcareous matter. Sometimes all the coats of the vessel are involved in the disease, and are converted into a long cylinder, in which no remnants of the original structure can be traced. (p. 21.) The formation of these depositions bears no resemblance to that of bone; they are seldom, if ever, preceded by the existence of cartilage, and no regular arrangement is discernible in their corresponding to the fibrous structure of bone. According to Mr. Brande's analysis of them, they contain 65·5 phosphate of lime, and 34·5 animal matter, without any carbonate of lime. The author, in his remarks on the frequency of calcareous depositions, talks of the "minute arteries" in old age being "rendered impervious, and their calibre diminished, by these organic alterations of their coats." He seems, for a moment, to have forgotten that calcareous depositions have not been found in arteries of small size, except in the singular instance of sanguineous apoplexy which he has himself detailed; where

"all the arteries, both the larger ones on the basis of the brain, and their minute ramifications on the pia mater, were extensively diseased. In some places their cavities were obstructed by a deposition of atheromatous matter between their coats, and in others they were converted into complete tubes of a calcareous structure, the section of which afforded a wiry sensation."—p. 27.

Calcareous matter is frequently deposited in the substance of the semilunar valves of the aorta, and produces more serious consequences than when it takes place in any other part of the arterial system. The valves, becoming rigid and fixed, diminish the size of the opening into the aorta. Whilst the pulse at the wrist is feeble, the heart is acting violently to compensate for the diminution in the quantity of blood which should pass through the aorta; and this comparative difference between the pulse at the wrist and that at the heart will, Mr. Hodgson conceives, in advanced cases, be sufficient to enable us to ascertain the existence of this incurable disease. A similar disproportion between the pulse at the heart and at the wrist exists also when the opening between the left auricle and ventricle is contracted; but a double pulsation of the heart has been observed in this case, and is said to distinguish it from contraction of the orifice of the aorta by ossification of its valves.

Mr. Hodgson has given some interesting cases of ossification of the coronary arteries. In one the heart was unusually small; its parietes soft and flaccid, and, upon the ventricles, not the eighth of an inch thick; whilst the coronary arteries and many of their ramifications were converted into calcareous tubes, and some of them nearly rendered impervious. This morbid appearance does not exist in every case which is attended with the train of symptoms to which we apply the term *angina pectoris.*

"Violent pain in the situation of the heart, extending down the arms, and terminating in a sensation of numbness, palpitation, and irregularity in its action, with frequent syncope and difficult respiration, accompany almost all the organic diseases of that organ."—p. 36.

The deposition of calcareous matter is seldom found in the upper extremities; and, although so frequent in the aorta, it has rarely or never been met with in the pulmonary artery or its valves.

*Preternatural dilatation* of arteries, which has been confounded by most pathologists with aneurism, is the subject next noticed by our author. It is generally attended with some morbid alteration in their coats, but there is no rupture of them. It occurs most frequently in the ascending aorta; he has however seen it in the thoracic and abdominal part of that vessel, as well as at the angles where the carotid and iliac arteries subdivide. The author's remarks on this morbid appearance are scattered, and will again come under our notice. Every person who has exerted himself in the cultivation of morbid anatomy, will acknowledge the remark which concludes this section to be just:

"That many cases which, during life, were considered as instances of angina pectoris, of asthma, or as arising from some disease in the lungs, have been proved by dissection to have had their seat in the great blood vessels."

What we have hitherto noticed are the principal contents of the first part of this work. The second comprises the history and treatment of Aneurism.

Coinciding in many points with Scarpa, Mr. Hodgson discards the division of aneurisms into true and false, and commences with this definition:

"When the coats of an artery have given way from any of the causes detailed in the preceding part of this treatise, such as ulceration, dilatation, or rupture, and the blood passes into a cyst formed by the condensed surrounding parts, so as to be out of the course of the circulation, the disease is termed aneurism."—p. 54.

Aneurisms exist from wounds; and some other diseases of the vascular system come under the same term; but in this part that variety only is considered which is produced by the disorganization of an artery from an internal cause.

Aneurisms very commonly originate in the way Scarpa has described, by the destruction of the internal and middle coats of the artery, and the expansion of the external or cellular coat into a sac. Ulceration and rupture are the causes which give rise to this destruction; and notwithstanding what has been stated by Richerande*, the author has not found either rupture or ulceration without the coats of the artery having undergone some previous morbid alteration. The earliest stage of aneurism was exhibited in a diseased and thickened aorta, where

"The internal and middle coats were destroyed apparently by ulceration, and the external coat was expanded into a small pouch not larger than a pea."—p. 62.

Aneurism from rupture, which is much more frequent, has not been so clearly traced to its commencement. Aneurism is shewn to arise from dilatation of the coats of an artery, as well as from the destruction or laceration of them. Mr. Hodgson has brought forwards some original and valuable proofs in favour of this doctrine, so strongly opposed by Scarpa. A single dissection of the aorta illustrates this formation of aneurism in three distinct stages.

"The internal coat was throughout inflamed, and presented a fleshy irregular appearance. At the arch of the aorta there was a dilatation not larger than the half of a small pea. About two inches lower in the same vessel was a second dilatation which would have contained a hazel-nut; and immediately above the diaphragm, was the large aneurism which had proved fatal."—p. 67.

* *Nosographie Chirurgicale*, tom. iv. p. 69.

A portion of the vessel containing the first dilatation being macerated until its coats could be easily separated, was found to consist of the three distinct arterial coats, each of which, when thus separated, presented the appearance of a minute aneurism. The second dilatation exhibited the same circumstances in a more advanced stage, the three coats being distinct, although adhering more intimately to each other. In the large aneurism, the internal and middle coats could be traced some way into the sac, and it is sufficiently probable that this also commenced in a partial dilatation of all the coats of the artery. We cannot congratulate the author on his attempts to contrast aneurism with the dilatation of arteries, a distinction of some importance in pathology. Preternatural dilatation may be partial, or may occupy the whole circle of an artery; and either of these may precede and give rise to what is strictly termed aneurism. In the latter disease there is a smooth membranous surface lined with coagulum, and in an advanced stage there are no traces of the coats of the artery. Preternatural dilatation of a vessel on the contrary possesses an uniformity of structure, is evidently composed of the three coats of the artery, and contains no lamellated coagulum. An artery is sometimes preternaturally dilated without any morbid alteration having taken place in its coats; but in general these are in a morbid condition, and the diseased appearances are found in various parts of the inner surface of the dilated portion.

It is difficult, however, to keep in mind this distinction between dilated aneurismal arteries. The author evidently confounds them when he says,

"The few specimens of aneurism in the arteries of the brain which I have met with appear to have consisted in dilatation."—p. 69.

He has again and again repeated the remark, that from the absence of cellular membrane within the skull, morbid alterations in the coats of arteries, which in other parts of the system would give rise to aneurism, are here followed by apoplexy. (p. 27. 69. 75.)

Mr. Hodgson's explanation of the formation of aneurism is a modification of the different doctrines of others on the same subject, and is briefly stated as follows:

"First; Numerous aneurisms are formed by destruction of the internal and middle coats of an artery, and the expansion of the external coat into a small cyst, which giving way from distention, the surrounding parts, whatever may be their structure, form the remainder of the sac.

"Secondly; Sometimes the disease commences in the dilatation of a portion of the circumference of an artery. This dilatation increases until the coats of the vessel give way, when the surrounding

parts form the sac, in the same manner as when the disease is in the first instance produced by destruction of the coats of an artery."

When an aneurismal sac invades the structure of a bone, the latter appears carious and corroded. Absorption is undoubtedly, as the author states, the principal agent in producing this effect, which is not observed to be accompanied with the formation of pus. Cartilage, whether subjected to pressure from, or exposed to the contact of blood in aneurismal sacs, is less rapidly absorbed than bone.

The deposition of the fibrous portion of the blood is generally one of the first circumstances which attends the formation of aneurism. This deposition takes place in concentric and successive layers, the external layers being formed first. Lamellated coagula have been found, in a somewhat similar state, in diseases of the heart, its cavities being so much dilated, or its muscular parietes so much attenuated, as to be unable to propel the whole of their contents so as to completely empty them.

Aneurisms, like abscesses, tend towards external or internal surfaces of the body. When they point externally, they rarely or never burst by laceration, but the extreme distension causes sloughing of the integuments and investing parts, and the blood issues forth on the separation of the eschar. The sac opens in the same way, when it projects into a cavity lined with a mucous membrane, as the stomach, œsophagus, or bladder. But in all instances where aneurisms have burst into cavities lined by serous membrane, as the pleura, pericardium, &c. it has been by laceration, and not in consequence of ulceration or sloughing. This general remark has not, as far as we know, been made by any other writer than Mr. Hodgson, and our recollection does not serve us with a single exception to it.

Aneurisms, and those diseases of the coats of arteries which precede their formation, are remarkably less frequent in women than in men. Out of sixty-three aneurismal patients which have come under the observation of the author, there were only seven females.

It is more requisite for the generality of practitioners to understand the symptoms and diagnosis of aneurisms, than to be able to perform great operations for the cure of them. The symptoms of an internal aneurism are, for the most part, very equivocal: when it is situated at the root of the aorta, they greatly resemble those of diseases of the heart.

"The pulse at the wrist is generally feeble and intermitting, the action of the heart is irregular, and attended with frequent palpitations; there is a sense of constriction across the chest, with an intense pain extending from the sternum down the arms, and a difficulty in respiration proportionate to the size of the tumour."—p. 89.

An aneurismal tumour arising from the superior part of the arch of the aorta, ascends gradually and appears externally at the root of the neck, and is very liable to be mistaken for aneurism of the subclavian or carotid. When situated in the thoracic aorta, an aneurism produces impediments of respiration and deglutition, and is often mistaken for diseases of the lungs or strictures of the œsophagus. Mr. Hodgson remarks on this subject, that in aneurisms not accompanied with diseases in the lungs, the expectoration consists of a thin frothy mucus, whilst in phthisis it is either puriform or thick and clotted. We are little disposed, however, to rely on this diagnostic sign, having so frequently witnessed a thick and clotted expectoration where the lungs have been sympathetically affected from some local disease, and where the pulmonary symptoms have speedily disappeared on the local complaint being removed.

Pulsation in the epigastric region exists from various causes besides aneurism; as, displacement or enlargement of the heart, dilatation of the inferior vena cava, and tumours within the cavity of the abdomen. The same symptom also occurs without any organic disease, in persons suffering from indigestion and hypochondriasis, and we have known it not only "mitigated," but entirely removed, by attention to these complaints. Mr. Hodgson thinks also that abdominal pulsation arises sometimes from distention of the stomach with air, as he has, in the cases to which he alludes, found the pulsation diminished by windy eructations.

Aneurisms in the extremities are less liable to be mistaken for other diseases than those which are internal. As they are sometimes without evident pulsation, however, the diagnosis is rendered obscure. If the artery be compressed above the tumour, it generally becomes more flaccid, whether it be attended with pulsation or not. If at the same time the tumour be compressed, its bulk may often be still further diminished; but, when the compression is removed from the artery and tumour, the latter instantly regains its former dimensions. Continued pressure with the hands will also enable us often to discover, in some part of the swelling, a degree of pulsation, which was not perceptible on a more partial examination.

"When the artery is compressed below an aneurism, so as to intercept the progress of the blood into the inferior arteries of the limb, the tumour is rendered more tense, and its pulsation more violent: when the pulsation in an aneurism is indistinct, it may in this manner be rendered more evident; and, in aneurisms which are not attended with pulsation when the passage of the blood through the inferior portion of the vessel is uninterrupted, by compressing the artery below the tumour, pulsation will sometimes be produced in the latter."—p. 97.

We must, however, caution the surgeon against placing too much confidence in compressing the lower portion of the artery under the circumstances last noticed. A tumour situated immediately over an artery, and having no pulsation, shall appear to pulsate, when the artery is compressed below it. We speak from observation. From this cause we have known a ligature put upon an artery with the expectation of dispersing a tumour, which proved not to be aneurismal.

Various tumours may possess a pulsation from their being situated underneath or upon an artery, or in consequence of an artery passing through them. If the tumour can be raised a little from the sublatent artery, the pulsation ceases, or is diminished. The whole mass of the tumour is alternately elevated and depressed by the artery beneath it, a motion to be distinguished from that general distension which is produced in an aneurismal sac, by the infusion of blood into it at each pulsation of the heart. When an artery passes over a solid tumour, this can hardly be mistaken; but a soft tumour, under the same circumstances, has been mistaken for aneurism. By careful examination the course of the artery can generally be traced over the tumour; yet this will not be sufficient to enable us always to discriminate the nature of the disease; because aneurisms have been known to arise from the posterior part of an artery. When a tumour derives a pulsation from an artery passing through it, the diagnosis is still more obscure. Tumours not aneurismal are neither rendered flaccid nor diminished in volume by compression of the artery above them.

Aneurisms, like most other diseases, occasionally undergo a spontaneous cure. The processes by which this end has been effected, are reduced by Mr. Hodgson under the following heads: 1st, the removal of the whole tumour by sphacelation, in consequence of the extreme inflammation excited by distension of the surrounding parts; 2dly, the tumour assuming such a position as to compress and obliterate the superior or inferior portion of the artery communicating with the sac; 3dly, the gradual deposition of the fibrine of the blood in the aneurismal sac, and the artery leading to it, so as to render them impervious, and allow of a subsequent process by which the tumour is removed. A spontaneous cure from the first and second of these causes is a rare occurrence; when this effect does happen, it is mostly from obliteration of the sac, in consequence of the deposition of lamellated coagulum. This subject is in some respects ably discussed by the author; and it would be a pleasure to us, if our limits permitted it, to follow him minutely throughout the whole of his reasonings upon it. The process he describes to consist of three stages:

"1st, The cavity of the sac is gradually filled with layers of

coagulum. 2dly, The circulation through the vessel is in most instances prevented by the extension of this coagulum to the origin of the next important ramifications that are given off by the artery from which the disease originates. 3dly, The coagulum is gradually absorbed, and the artery and the sac contract until the one becomes an impervious cylinder, and the other a small fleshy tumour." —p. 117.

Mr. Hodgson has attempted to prove, that an aneurism may also be cured by the deposition of coagulum, without the obliteration of the cavity of the artery from which it originates. In some of the cases of aneurism of the aorta, however, which he details for this purpose, death evidently took place from the existence of the aneurismal tumour; and, therefore, rather prove the contrary of what was intended. None of them are examples of "a perfect cure;" although the deposition within the sac had gone so far as to "render it incapable of bursting, by entirely precluding the ingress of the blood." This was dating the cure of a disease from the time at which it is so changed that it cannot be immediately fatal. We are alluding to cases 20, 21, 22, and 23; the three last of which are accompanied by no satisfactory history; and the first only shews that, as the patient becomes exhausted by the long continuance of the disease, and the debilitating means of treatment employed on account of it, the aneurismal tumour shall diminish, the symptoms shall be somewhat alleviated, although the patient gradually sinks under them, and the whole cavity of the aneurismal sac shall be found nearly filled with a firm and fleshy coagulum, which does not extend into the cavity of the aorta so as to encroach upon its calibre.

It is the primary object in the medical as well as the surgical treatment of aneurism, to facilitate those processes which are known to take place in a spontaneous cure. It is therefore the impetus of the circulation which causes the dilatation and ultimate rupture of the sac, and prevents the extensive deposition of the coagulum within it; hence the diminution of the force of the circulation by

"repeated blood-lettings, abstinence, attention to diet, perfect quietude, the absence of such states of the mind as peculiarly affect the circulation, and attention to the condition of those organs, more particularly of the alimentary canal, which exert a peculiar influence over the action of the heart and arteries."—p. 145.

The use of digitalis and the application of ice to the tumour, have been employed with some apparent advantage; but bleeding and meagre diet are the means most to be relied upon, and when the disease is in the aorta, the bleedings, as Mr.

Hodgson remarks, should be small in quantity from a small orifice, and frequently repeated to avoid fainting;

" for the blood is liable during that state to accumulate in the aneurismal sac, and to form an impediment to the circulation when the heart revives."—p. 161.

The surgical treatment consists in the obliteration of the cavity of the artery communicating with the sac, the increase of the tumour being thus prevented, the deposition of coagulum is promoted. Compression has been used for this purpose. The success which has occasionally attended compression of the whole limb, is to be attributed chiefly to the debilitating means of treatment that were combined with it. In every instance in which partial pressure, with a view to obliterate a portion of the artery above the disease, has been tried in this country, the pain has been so great, that the patient could never submit to the treatment long enough for any satisfactory result to take place. The French surgeons, however, seem in a few cases to have employed it with happy effect. In a few rare instances in which the body of the tumour is reflected upon the superior part of the artery, moderate compression may be advantageously combined with the debilitating treatment, to promote a spontaneous cure: but all attempts to repress the growth of aneurisms proceeding from the thorax or abdomen by external pressure, are injurious, and attended with an aggravation of the symptoms.

We shall not trouble our readers with a history of the old method of operating for aneurism by opening the sac, (a method, which in France is not even yet fallen into disuse); but shall proceed to consider what is called *the operation for aneurism*, the application of a ligature to the trunk of the artery at a distance from the aneurismal tumour.

Mr. Hodgson notices three important points connected with this operation: 1. The application of the ligature so as to obliterate the trunk of the artery. 2. The mode by which the circulation is afterwards carried on through the collateral channels. 3. The changes which subsequently take place in the aneurismal tumour.

The effect to be produced by the application of a ligature upon an artery is not simply an approximation of the sides of the vessel, as was formerly supposed, but is a distinct operation upon it: a wound is produced in its internal and middle coats, which gives rise to an effusion of lymph, whereby the opposite surfaces of the extremity of the vessel are united, in the same manner as soft parts in general are healed by the adhesive inflammation. The detail which the author has given of this process differs from Dr. Jones's account of it, only in the former

stating that the ligature causes the *sloughing*, and not the ulceration of the external coat which it immediately embraces. Hæmorrhage from the application of the ligature may occur at two periods; either within a few hours after the operation, or between the sixth and the thirteenth day (or even later), when the ligature may be expected to be detached from the vessel. The cause of the first of these occurrences, as Mr. Hodgson states, is the slipping off of the ligature from the end of the vessel: and of course it can only take place when the artery has been divided. A mistaken fear of cutting through the external coat of the vessel; from the ligature being too thick, or not regularly applied to the artery in a circular direction; or the ends of it, in making the knot, having crossed each other in such a way as to make a knot that will slip; from any of these causes, the ligature may be too loose, and slip off where the vessel retracts.

"If spicula of calcareous matter exist in the artery at the place where the ligature is applied, it may cut through *all* the coats of the vessel, and in that way give rise to hæmorrhage.

"But secondary hæmorrhage generally occurs at a remote period. The principal causes of this accident are the obstacles which the adhesive inflammation has met with in consequence of, 1. a morbid condition of the coats of the artery; 2. the application of an improper ligature; 3. its premature removal; 4. sloughing, or ulceration of the vessel and surrounding parts."—p. 202.

The ligature employed should be of such a shape as will effect a simple division of the internal and middle coats throughout the whole of their extent. A broad ligature does not make a smooth and even wound of the coats; and by extending beyond the point of adhesion (i. e. beyond the cut surfaces), causes ulceration and hæmorrhage. Flat ligatures will effect only a partial and contused laceration of the internal coats, and are liable to the same objections.

"From the same reasoning it is evident how opposite to the processes of obliteration is the employment of gradual or extended pressure, which, instead of operating upon the internal coats of the artery, produces ulceration from without, and exposes the cavity of the vessel. Hence also the impropriety of surrounding the artery with cylinders of lint, plates of cork or wood, slices of agaric, *serre-artères, passe-artères, ligatures d'attente*, and a variety of inventions which have been employed for the purpose of preventing, but which in fact tend to produce secondary hæmorrhage."—p. 206.

It is desirable that an artery should be completely detached from its connections before the application of a ligature; for if any of these are included in it, they generally slough or ulcerate; and they always render

"it difficult to calculate the force which is requisite to divide the internal and middle coats."—p. 208.

The most frequent cause of hæmorrhage is the ulceration or sloughing of the extremity of the artery: either of these may be confined to the artery itself, from the employment of improper contrivances to effect its obliteration; or may occur in the surrounding parts from improper treatment of the wound, and many other causes: for whatever excites ulceration or sloughing of a wound, will be liable to produce these effects after the operation for aneurism.

The following remarks as to the proper mode of applying a ligature to an artery, appear to us to be justified by the investigations of modern physiologists, and the practice of our best surgeons.

"First: The cord should be thin and round, such a ligature being most likely to effect a clean division of the internal and middle coats of the vessel, aud not liable to occasion extensive ulceration or sloughing.

"Secondly: The ligature should be tied very tight, in order to insure the complete division of the internal and middle coats, and to prevent its detachment, it being almost impossible, even with the thinnest ligature, entirely to cut through a healthy artery.

"Thirdly: The vessel should be detached from its connexions only to such an extent as is necessary for the passage of the ligature underneath it.

"Fourthly: The immediate adhesion of the wound should be promoted by all those means which assist that process in general.

"Lastly: Experience having proved that secondary hæmorrhage arises more from an improper mode of tying the artery or of treating the wound, than from the condition of an undivided artery, the practice of applying two ligatures and dividing the vessel in the interspace is not an essential object. But in situations where there is a vigorous circulation at both ends of the vessel, the application of two ligatures is advisable."—pp. 224–6.

There are two modes by which arteries communicate with each other—the anastomoses of minute ramifications, and the direct inosculations of trunks; and the circulation is immediately carried on by one or both of these modes, when the main artery of a limb is rendered impervious by the application of a ligature. If an artery be tied a short time before the death of an animal, and the limb afterwards injected, the anastomoses of minute vessels are larger and more numerous. If the limb be examined at a more remote period from the obliteration of its main artery, a few of the anastomosing vessels will be found enlarged, so as to form permanent channels for the continuance of the circulation, whilst the rest have collapsed to their original size. Throughout the body the anastomosing branches of arteries are so distributed as to form arches, which connect different portions of the same trunk, so that the blood may be conveyed from one extremity to the other of a vessel, without

passing through its cavity. In proportion as the vessels diminish in size, their communications with each other are more numerous.

Mr. Hodgson observes, that the dilatation of the collateral branches is not entirely owing to the mechanical effect of the increased force with which the blood is driven into them, when its passage through the main channel is obstructed; it seems rather to be dependant upon a property in the vascular system, whereby the size of the vessels is always accommodated to that of the parts which they supply. When a main artery is obliterated, the whole limb may be regarded as an adventitious appendage which derives its nourishment entirely from the collateral branches; these

"are consequently enlarged so as to transmit a due quantity of blood, in the same manner as they are dilated, for the support of morbid growths."—p. 255.

Immediately after the operation for aneurism, the temperature of the diseased limb is commonly below that of the rest of the body. In the course of a few hours it increases; and on the second and third days it is four or five degrees higher than the temperature of the opposite limb. It continues thus for several days, whilst the anastomosing channels are dilating, and then gradually subsides to the healthy standard. Mr. Hodgson ingeniously remarks, that

"the part in which the anastomosing vessels are situated, may be said to be in a state of inflammation, which is always attended with an unusual evolution of heat."

We have found, however, that the increase of temperature is not confined to the part where the dilated anastomosing vessels are situated, but extends over the whole limb. A more satisfactory explanation of the increase of heat seems to be, that an increased action takes place in the minute vessels, in consequence of the temporary impediment which the circulation in them experienced from the application of the ligature.

There are various circumstances which may prevent the establishment of a collateral circulation; as, placing the limb in such a position that the chief weight of it rests upon the part in which the principal collateral branches are situated; applying tight bandages; allowing the aneurismal tumour to grow so large as to destroy parts in which some of the principal anastomosing vessels are situated, or by its pressure to prevent their dilatation—a too languid state of the circulation, disease in the vessels, and old age, &c. A vigorous state of the system is necessary for the establishment of a collateral circulation; hence the impropriety of copious bleedings after the operation for aneurism. The abstraction of heat from the limb after the

operation, has given rise to mortification. If the arterial action be torpid, it may be proper to quicken it by friction, or warm clothing; if excessive, it may be controlled by general bleeding and the employment of evaporating washes.

Mr. Hodgson finishes his account of the *collateral circulation* with these practical conclusions.

"First: When the circumstances tending to prevent the establishment of a collateral circulation, which I have mentioned, do not exist, we need not apprehend the death of any part in consequence of a deficient supply of blood after the ligature of its main artery.

"Secondly: The circulation will be as effectually carried on in a healthy limb when the main artery is suddenly tied in consequence of a wound, as when an aneurism has existed for a considerable time.

"Lastly: The practice of permitting an aneurism to increase, that the collateral branches may become enlarged, is not only unnecessary, but injurious, inasmuch as that the increase of the tumour must be attended with a destruction of the surrounding parts, which will render the cure of the disease more tedious and uncertain."—p. 265, 266.

The next important point in the history of the operation for aneurism, is the effects produced upon the tumour by the ligature on the artery which supplied it.

That a stream of blood in most instances passes through the sac after the tying of the superior part of the artery, at a distance from the disease, is proved,

"1st, by the occasional recurrence of pulsation in the tumour after the operation; 2dly, by cases in which the cavity of the sac has been exposed, and hæmorrhage has been the consequence; and, 3dly, by dissections, in which it has been found that the cavity of the aneurism as well as that of the artery from which it originated, was pervious, from the part which was obliterated by the direct operation of the ligature."—p. 267.

This state of the sac is not of long duration; for the ingress of blood into it is gradually obstructed by the accumulation of coagula, until the sac is filled, and the mouth of the artery opening into it is closed. The sac and artery afterwards contract until the cavity of the latter is obliterated, both above and below the part from which the aneurism arose, to the origin of some important branch. As the absorption of the coagulum advances, the membranes of which the sac is composed gradually contract, and are at last converted into a solid ligamentous cord or knot, similar to what is met with at a remote period from the spontaneous cure.

When the cure of popliteal aneurism has been thus effected by the modern operation, a portion of the femoral artery has been found to be obliterated for the space of three or four fin-

gers' breadth at the place where the ligature was applied; below that part it was pervious, and continued so for some distance, when the obliteration again commenced, and continued throughout a considerable extent of the popliteal to the origin of the inferior, articular, or tibial arteries. Thus an insulated portion of the artery had preserved its cavity, which was terminated above by the part obliterated by the ligature, and below by the part which had become impervious in consequence of the effects of the operation upon the aneurism in the ham. This insulated portion of the artery still retained its calibre; and by considerable anastomosing vessels joining its upper extremity, it received blood, which it transmitted into anastomosing channels which originated below the knee. Mr. A. Cooper's case, where the femoral artery was converted into a solid cord from the origin of the profunda to the commencement of the tibial arteries, is the only instance that has been dissected, where so extensive an obliteration of the vessel has been found.

The blood which enters the sac after the ligature has been applied at a distance from the disease, may be derived from three sources: 1. From the superior extremity of the artery. 2. From anastomosing branches which open into the sac itself. 3. In a retrogade direction from the inferior extremity of the vessel.

The application of a ligature below the aneurismal tumour, has been twice tried, when the disease was so situated, that the ligature could not be applied above it; and although both cases terminated unfavourably, they do not altogether destroy the probability of a more happy result, if no branch originated from the aneurism, or from the portion of the artery between the ligature and the tumour.

Neither the age of the patient nor the size of the tumour are sufficient reasons for omitting the operation for an aneurism, provided the circumstances of the case in other respects appear to demand it. When the tumour is very large, if mortification should follow the operation, the limb can then be amputated. Neither should the operation be omitted, although appearances of gangrene have taken place on the tumour; for, should it burst afterwards, it is probable, that both ends of the artery in the sac will be closed with coagula, so as to prevent hæmorrhage. In two instances in which patients have died from popliteal aneurism, it was found, that a small aneurism at the root of the aorta had burst into the pericardium. It is therefore prudent to inquire previously into the existence of thoracic or abdominal aneurisms; and if these be present, only a palliative treatment, by depletion, abstinence, and quietude, should be employed. The operation should not be prevented on account of the existence of more

than one aneurism in the extremities at the same time. The main arteries of two limbs have been tied with perfect success in the same patient. Mr. Hodgson believes, that the ligature of one trunk accelerates the growth of the aneurism in the opposite limb. The second operation may be performed with safety a few days after the ligature employed in the first is detached.

After this general view of the pathology and treatment of aneurism, Mr. Hodgson gives a practical as well as historical account of particular aneurisms, for which operations are required; carotid, axillary, subclavian, brachial, radial, ulnar, inguinal, glutæal, ischiadic, femoral, popliteal, and tibial. Having been little engaged in operating for aneurisms, he has not been able to add to the value of this part of his work by original cases: but he has brought together all the instances in which the more important vessels have been tied; and described the particular course of the collateral circulation, after the application of a ligature to the different arteries in the body. The mode of the performing the operation for each aneurism, and the anatomy of the parts concerned in it, are briefly and clearly detailed. These are subjects, however, which ought not to be abbreviated, and which we do not think it at all necessary to transcribe. We dwelt much upon the *pathology*, *diagnosis*, and *general treatment*, of aneurism, because it falls to the lot of every medical man to meet with cases of it, and to give an opinion upon them. But we trust that no surgeon will undertake an operation for diseases of this kind, without making himself acquainted with all which has been written upon the subject: and much may be learnt from Mr. Hodgson's work.

Under the head of Aneurism from Anastomosis, Mr. Hodgson has given Mr. John Bell's account of that disease; Mr. Travers's case, where the carotid artery was tied for an aneurismal tumour in the orbit; and some of Mr. Abernethy's* remarks on the treatment of a species of the *Nævi Materni* by pressure, &c. In reference to the last of these subjects, Mr. Hodgson adds the following case:

"I have at this time a child under my care, in whom the disease is nearly cured by compression. The tumour is situated upon the scalp. When the child was born the swelling was very small, but soon after birth it increased rapidly. It was of a purple colour, and enlarged when the child cried. It could be emptied of its contents by pressure. It was not attended with pulsation, but the arteries

* Surgical Observations on Injuries of the Head, and on Miscellaneous Subjects, p. 224.

and veins by which it was supplied were remarkably dilated. It is now seven weeks since I commenced the compression by means of a piece of card, which was firmly bound upon the tumour by adhesive straps. The tumour is at least two-thirds less since this treatment was employed. When the means which I have mentioned cannot be used on account of the situation of the disease, the early extirpation of these tumours is advisable."—p. 448.

In the same section, the "anomalous tumour" described by Pott* and several other writers is noticed; and two original cases, in which the disease was situated in the thigh, are introduced. Mr. Hodgson, in the third part of his work, treats of wounded arteries, aneurisms arising from them, and aneurismal varix.

The view which he has taken of wounded arteries is not very comprehensive. The various causes which give rise to them, such as gun-shot wounds, laceration, fracture of bones, puncture, incision (from accidents or in operations), ought to be noticed in a practical work like this; and the important subject of hæmorrhage fully discussed. But the author has contented himself with giving the results of Mr. Jones's admirable investigations on the means by which hæmorrhage from wounded arteries is suppressed, with a word or two on caustics, styptics, and compression, and then hastened to lay down as a general rule, that

"in every instance in which an artery of considerable size is wounded, each extremity of the vessel should be tied as near as possible to the wound in its coats."—p. 469.

That this is a good practical rule, and that it should, as far as possible, be followed by every surgeon, we do not dispute. There is, however, something more than this to be said about the matter; something upon the difficulty of finding both ends of a vessel in a confined and lacerated wound, or the method of searching for them by laying open the sheath into which they may have shrunk when completely divided by a cutting instrument; something upon the different periods at which such a degree of hæmorrhage may occur, as to indicate the existence of a breach in any considerable vessel; something, also, upon tying the arterial trunk above the wound, as a last resource, when attempts have been made in vain to rescue the exposed ends of it.

A wounded artery is followed by a diffused aneurism; when, after the integuments have been brought together, compressed, and united, bleeding takes place into the cellular membrane, surrounding the artery, and connecting the different parts of

* Chirurgical Works, by Earle, vol. iii. p. 223.

the limb. The treatment of this case should be the same as that of a wounded artery with external hæmorrhage.

"Having divided the integuments, and sponged out the blood, the operator should search for the wound in the artery, into which a probe may be introduced, so as to enable him to detach the vessel with accuracy from the surrounding parts. Both extremities of the artery being tied, the blood should be pressed out of the cellular membrane into which it has been injected, in order to diminish as much as possible the extent of the suppuration which is the general consequence of this injury."—p. 483.

When an artery is punctured or partially divided, the orifice may be closed by a layer of coagulum, so as to stop the hæmorrhage, and the edges of the wounded artery may be subsequently united by the effusion of lymph, in the same manner as wounds in soft parts in general are healed by the adhesive inflammation. This takes place more frequently, when the wound in the vessel is longitudinal than when it is transverse or oblique. Some days, or even weeks, after the accident, this lymph is perhaps torn through, and a circumscribed aneurism formed. The same treatment is required for this aneurism, as for those arising from diseases of arteries.

Pressure has been successful in so many instances of aneurism from fractured arteries, that it ought, we believe, to be tried, notwithstanding the little confidence which Mr. Hodgson places in it. If an operation be required, the ligature of the artery at a distance from the wound, will as certainly effect a cure of this kind of aneurism, as of that which is a consequence of a morbid condition of the coats of the vessel.

When a vein is transfixed, and an artery lying immediately beneath it punctured, the blood passes from one into the other, dilates a portion of the vein into a sac, and forms the disease termed aneurismal varix. Sometimes the cellular membrane, between the artery and vein is dilated into an aneurismal sac, which forms an intervening cavity of communication between the two vessels; this Mr. Hodgson calls varicose aneurism. It seems more proper to regard these as different states of the same disease, since they originate from the same cause, and since one is sometimes converted into the other.

The fourth part of this work is on the *Diseases of Veins*, which are liable to all those morbid changes that are common to soft parts in general.

1. *Inflammation of Veins.*—Of this state of disease the inner coat of veins is peculiarly susceptible. Inflammation of a wounded vein of the extremities may extend to the great venous trunks, or even to the cavity of the heart. Sometimes it produces an effusion of lymph, and the tube becomes obliterated.

In other instances pus is formed, which mixes with the circulating blood; or

"the inflammation having produced adhesion of the sides of the vessel at certain intervals, boundaries are formed to the collections of pus, which in this manner form a chain of abscesses in the course of the vessel."—p. 512.

When the inflammation of veins is not very extensive, its symptoms are the same as those of local inflammation in general; and it requires the same treatment—"leeches, purges, low diet, and evaporating washes." But when the inflammation extends to the larger venous trunks, and pus is secreted into the cavity of the vessel, it is accompanied with symptoms very like typhus fever. We could add much to the few pages which Mr. Hodgson has given on this subject, by urging the propriety of active general bleeding in the earliest stage of an inflamed vein; the preference of warm fomentations to evaporating lotions; the relief experienced from pain by the application of a bandage below the wound of the vessel, &c.—information which we have not derived from books, but from witnessing the effects of ligatures upon the vena saphena, and the treatment which has conducted to a successful issue, after alarming symptoms of inflammation of that vein had made their appearance. We cannot agree with Mr. Hodgson in attributing the peculiar typhoid and nervous symptoms which accompany inflamed veins, to the mixture of pus with the circulating blood. Pus has been injected into the veins of a dog without causing any such symptoms; and symptoms of low fever have been present, and death followed, where only redness of the inner coat of a vein, and slight depositions of coagulable lymph, were found on dissection.

2. *Various Morbid Appearances in the Coats of Veins.*—Ulceration has been observed on the inner surface of large veins, and their coats destroyed by it. It sometimes extends to them from neighbouring parts, and by exposing their cavities, gives rise to hæmorrhage. In general, however, the adhesive inflammation precedes the ulcerative; and by obliteration of the cavities of these vessels, bleeding is prevented. Venous trunks are sometimes ruptured; and when this happens to those near the heart, we may observe, death takes place more suddenly than when that viscus itself is wounded or lacerated. Calcareous matter has very rarely been found in the coats of veins, although so constantly occurring in the arteries of old persons. Loose calculi have been found in the veins of an uterus, and in the dilated veins surrounding enlarged prostate glands.

3. *Obliteration of Veins, and Venous Collateral Circulation.*—The inferior vena cava, the common iliac and internal jugular

veins, have been found obliterated, in consequence of inflammation, or the growth and pressure of tumours, and the circulation has been carried on without any inconvenience from this cause.

4. *Varicose Veins.*—These are of so frequent occurrence, and the diseases which seem to be dependant upon them are often so painful and difficult of cure, that we lament the total absence of new matter in this branch of pathology. The permanent cure of varicose ulcers is as yet almost beyond our reach. The dangers of tying the vena saphena are sufficient objections to the practice; and if the patient escape them, he obtains but temporary relief. We have seen the diseased veins dissected out, cut across and compressed till they were obliterated, destroyed by caustic, &c.; all of which operations are very painful, and none of them so effectual in the cure of varicose ulcers as could be wished. The pathology of piles is not well understood; the nature of these, the peculiarities in the venous circulation with which they appear to be connected, and the influence which hepatic disease may have in disposing to their production and continuance (matters at which Mr. Hodgson has scarcely glanced), would, in our opinion, have afforded opportunities of original investigation that were very much within his power. He has made no remark upon a varicose state of the veins about the neck of the bladder, which has been observed and recorded amongst the causes of retention of urine*. Let us not, however, so near the conclusion of our analysis, censure too severely a work, from many pages of which we have reaped considerable information. Mr. Hodgson's labours have certainly been energetic, useful, and in most respects well directed; and we feel ourselves called upon to thank him for what he has done, rather than to blame him for what he has omitted to do.

A short appendix is subjoined to this work. Besides "a case of obliteration of *the brachial, radial, ulnar, femoral, popliteal,* and *tibial arteries,*" it contains an interesting account of worms, which are frequently to be found in the mesenteric and other arteries of horses and asses, buried in a mass of lymph. Their existence has been noticed by several writers. Rudolphi† supposed that they were originally formed in tubercles, or sacs, attached to the arteries externally; and that the coats of these

* Richerand, Nosographie Chirurgiale, tom. iii. p. 470.

† Rudolphi, Entozoorum, sive Vermium Intestinalium Historia Naturalis. This is a work of singular research, and is too little known in this country.

being destroyed in consequence of the pressure of the sac, communication was formed between it and the cavity of the vessel.

"The nature of the disease in the coats of the vessel, however," observes Mr. Hodgson, "refutes this opinion; for, in the specimens which I have examined, it has invariably consisted of an uninterrupted dilatation and thickening of the three coats of the vessel."—p. 573.

In the appendix three cases are mentioned, in which Professor Assalini cured popliteal aneurism by exposing the femoral artery, and for a time compressing it with a small pair of forceps. In two of the cases the pressure was applied only for twenty-four hours.

A book like the one before us, including within a small compass all the modern investigations respecting the physiology and pathology of arteries; and exhibiting, from a general review of them, the most approved methods of treatment, was certainly much wanted; and the task could not have fallen into the hands of a more accurate and practical writer than Mr. Hodgson. The advantages of a liberal intercourse between professional men are eminently shewn by the information which the author has collected from this source, and communicated to the public. The subject of the treatise was worthy of these generous contributions. The pathology and surgery of arteries have been cultivated with so much zeal and success in England, that the fame of our discoveries and operations has resounded throughout Europe; and the present will be recorded amongst the most luminous periods in the history of our science.

The plates are well executed; but are not essential to the right understanding of the work.

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## II.

*Traité des Poisons tirés des Règnes Minéral, Végétal, et Animal, ou Toxicologie Générale, considérée sous les Rapports de la Physiologie, de la Pathologie, et de la Médicine Légale.* Par M. P. Orfila, M.D. &c. &c. Tome second, 8vo. pp. 682. Paris, 1815.

[Continued from page 411.]

The fifth chapter, which treats of the fifth class of our author's arrangement, is intitled, *Des Poisons Narcotico-acres.* It comprehends those poisons which have an acrid nauseous taste, and which at the same time act as narcotics and rubefacients: but M. Orfila admits that the name is but little appropriate in many instances.

*Belladonna* (Atropa *belladonna*) is the first noticed in this

class. Eight experiments on dogs, in which the extract was introduced into the stomach, and applied to external wounds, are detailed; and several cases of the deleterious effects of the berries both on children and adults, quoted from various authors. The berries, however, do not appear to possess the same influence upon dogs; for in one instance our author gave thirty to a small dog, without any bad consequences resulting. From his experiments, and the facts he has collected, M. Orfila draws the following conclusions:

"1. Belladonna and its extract possess very powerful poisonous properties. 2. Their local action is not powerful: but being absorbed, and carried into the circulation, they act upon the brain and nervous system. 3. The symptoms they produce are common to many other poisons, and therefore insufficient to characterize this poison, although the contrary has been asserted by authors. 4. The extracts found in the shops differ in strength according as they have been prepared; the most active are those *which are obtained by evaporating, in a gentle heat, the juice of the fresh plant.* 5. Their action is more intense when they are injected into the veins, than when applied simply to the cellular tissue, and much more so than when introduced into the stomach. 6. These preparations appear to operate in a similar manner upon men and upon dogs."

The experiments of M. Orfila, and the observations of other writer, prove that the different species of *Thorn-apple*, Datura *Stramonium*, *Metel*, *Tatula*, and *Ferox*, produce nearly the same effects as belladonna. Datura, however, excites more powerfully the action of the brain; and even the smoking the dried stem and leaves of *Stramonium* has in some instances excited vomiting, dilatation of the pupils, delirium, cold sweats, and syncope: but our author takes no notice of this mode of using the plant.

*Of Tobacco*, (Nicotiana *tabacum*,) Tabac. Besides our author's own experiments made in his usual manner with this poison, he details those of Mr. Brodie, and three furnished to him by Professor Macartney of Dublin: but fewer cases, and those less important than might have been collected, are given in illustration of its deleterious effects when applied to the human system. Two additional experiments were made, to ascertain the effects of Nicotiana *rustica*, the extract of which proved fatal when applied to the cellular tissue of the ham in two dogs. From the whole the following conclusions are deduced:

"1. That the leaves of tobacco, either entire or reduced to powder, such as are generally sold, possess powerful poisonous properties. 2. That their active principle appears to reside in that portion soluble in water, which is absorbed and carried into the course of circulation. 3. That their deleterious effects apparently depend on a peculiar action exerted on the nervous system, and that they always occa-

sion a general tremor, which is rarely observed when other poisons are employed. 4. That their action is more powerful when the infusion is injected into the anus, than when it is applied to the cellular tissue; and much more so than when it is introduced into the stomach. 5. That, independent of the phenomena we have spoken of, they excite a local inflammation more or less intense. 6. That they appear to act upon men as upon dogs. 7. That the empyreumatic oil does not act directly upon the brain or the nervous trunks, but produces its effect upon the nervous system in a manner which has not yet been explained. 8. That the extract of nicotiana *rustica* produces the same effect as tobacco, but is less active."

*Of Purple Foxglove*, (Digitalis *purpurea*,) Digitale pourprée. After describing this plant, and prior to the examination of its properties on the animal economy, our author quotes the analysis of *Bidault de Villiers*, which we extract for the satisfaction of such of our readers as have not seen his Dissertation. Six drams* of well dried foxglove-leaves furnished:

"1. Two drams 60 grains of aqueous extract. 2. Twelve grains of spiritous extract. 3. Eight grains of a peculiar precipitate, and 2 drams 60 grains of an inert powder, which yielded, by the action of reagents, 6 grains of carbonate of lime, 2 grains of red oxide of iron, 3 grains of silex (*sable quartzeux*), 2 grains of phosphate of lime, a grain of sulphate of potass, some traces of sulphate and muriate of lime and carbonated alkali, with a grain of carbon."

The fatal effects of foxglove and its preparations on animals being well ascertained, M. Orfila directed his experiments with the view of answering the query, "Sur quels organes la digitale exerce-t-elle son action meurtrière?" The following are the results to which they led:

"1. That the powder, the aqueous and resinous extracts and tincture of foxglove, may be regarded, in certain cases, as very energetic poisons. 2. That the resinous extract is more active than the aqueous, which however is more so than the powder. 3. That the extracts act powerfully and rapidly when injected into the jugular vein; less so when applied to the cellular tissue; and still much less when taken into the stomach, even although vomiting be prevented. 4. That all these preparations operate at first as emetics. 5. That their effect upon the circulating system varies, according to the disposition of the individuals: sometimes no change is observed in the functions of that system; sometimes the heart contracts more slowly; but as frequently it acts more rapidly, strongly, unequally, and intermits. 6. That the resinous extracts appear to have a peculiar action on the heart, or rather the blood, as this fluid is always found coagulated after death, when the extract has been applied to the cellular tissue, or introduced into the stomach. 7. That independently of these phenomena foxglove and its preparations act upon the brain, after having been absorbed, and produce a kind of stupor, which is the immediate forerunner of death. 8. That the powder of foxglove

* The French dram is 72 grains.

produces a local irritation capable of exciting inflammation. 9. That there is every reason for believing, that foxglove acts upon men in the same manner as upon dogs."

M. Orfila observes in a note, that he cannot admit to its full extent the assertion of many practitioners, that foxglove always diminishes the action of the heart and arteries; and states, in confirmation of his opinion, that he has taken the powder to the extent of twenty grains, every day for a month, without perceiving any diminution in the action of the heart. We do not question the accuracy of his observations; but we are inclined to think that much of the contradictory evidence on this subject, is to be attributed to the careless manner in which the powder is too frequently prepared and preserved.

*Field Pimpernel* (Anagallis *arvensis*), Mouron des champs, according to our author's experiments, is fatal to dogs, both when taken into the stomach and applied to a wound: and *Gronier* found that a strong decoction of it given to horses, produced tremors of the muscles of the posterior extremities and those of the throat, and a very copious flow of urine. "After death the mucous membrane of the stomach was found inflamed."

*Of Aristolochia*, (Aristolochia *clematitis*). This vegetable acts powerfully upon the animal economy, producing stupor and a slight degree of inflammation in the tissue to which it is applied. The juice of Aristolochia *anguicida*, when administered to serpents in a dose of a few drops only, produces vertigo, convulsions, and death.

*Of Hemlock*, (Conium *maculatum*,) le grande ciguë. From the experiments of M. Orfila, and cases recorded by authors, it appears,

"1. That the fresh leaves of hemlock furnish, at a certain period, a juice which is extremely poisonous: but that furnished by the roots, gathered at the same time, is less active. 2. That the aqueous extract, prepared by evaporating the juice of fresh hemlock in a water-bath, preserves the greater part of the properties of the plant; whilst it is less active, and sometimes even inert, when prepared by boiling the dry powder in water, and evaporating the decoction at an elevated temperature. 3. That the different preparations of this plant act more quickly and energetically when injected into the jugular vein than when applied to the cellular tissue, or introduced into the stomach. 4. That they are absorbed, carried into the circulation, and act upon the nervous system, particularly upon the brain. 5. That they also exert a local irritation capable of producing inflammation."

The same effect, but in a more powerful degree, is produced by the *Water-Hemlock*, (Cicuta *virosa*).

*Of Fool's Parsley* (Æthusa *cynapium*), le petite ciguë. As this plant is common in gardens, and often found growing

amongst parsley, our author endeavours to point out the following as the characteristics by which it may be distinguished:

"1. The leaves of fool's parsley are blackish green, and shining on the upper surface. 2. They are inodorous when smelt without being bruised; but when rubbed between the fingers exhale a nauseous odour; whilst the smell of parsley, on the contrary, is very agreeable. 3. The root is smaller than that of parsley, and perishes in autumn."

A more certain characteristic, in our opinion, is to be obtained from the botanic characters of the two genera. In æthusa, the involucellum is dimidiate or on one side only, *triphyllous* and *pendulous;* whilst apium has a *monophyllous* involucrum. It may be objected, that this requires a knowledge of botany. We admit the truth of the remark; and cannot avoid embracing this opportunity to express our surprize at the extraordinary neglect of botanical science in the education of British medical practitioners. Were any arguments wanting to prove the necessity of that study, we have only to refer to M. Orfila's work; while at the same time we may venture to affirm, that not half a dozen of upwards of one hundred and fifty poisonous plants of which he treats, are known to the great majority of the faculty in this island. Ought this to be the case?

*Of the Rose-Laurel,* (Nerium *oleander*,) Laurier-rose. The whole of this plant has a bitter very acrid taste; it possesses powerfully deleterious properties; and even, if we can trust the authority of Libaut, has proved fatal merely by the odour, when placed in a bed-room during the time it is in flower. From M. Orfila's experiments, it appears,

"1. That the aqueous extract of this plant, applied to the cellular tissue, or swallowed, is a very active poison, and acts with more energy and rapidity when it is injected into the veins. 2. That the powder also possesses poisonous properties, but in an inferior degree. 3. That the distilled water is still less active than the powder; that the different preparations are absorbed, and act upon the nervous system, and particularly upon the brain. 4. That they almost always produce vomiting. 5. That they also exert a slight local irritation.

M. Orfila classes together the *Upas*, the *Nux vomica*, and the *Faba St. Ignatia*, as all belonging to the genus Strychnos.

There are two species generally known under the name *Upas**; the first, the *Upas-tieuté*, is the juice of a trailing plant; the second, which is named *Upas-antiar*, is the production of a large tree. Both have been erroneously confounded by writers under the names, *Boa* or *Bohon upas*. Our author treats in this

* This word signifies *vegetable poison.*

place of the first only, upas-tieuté, and details seventeen experiments made with it upon dogs and horses, in which it was chiefly applied to wounded surfaces.

The *Nux vomica* is the seed of the Strychnos *Nux vomica*, a very large tree, growing on the coast of Coromandel and Malabar, and in the island of Ceylon: but the seed of Strychnos *colubrina* is also sold as nux vomica. The Analysis of *Chevreul* is quoted. He found that, besides woody fibres, this seed contains acidulous malate of lime, a bitter substance, a fixed oil, a yellow colouring matter combined with starch, earthy and alkaline salts, and wax. Fifteen experiments were made with it upon dogs and rabbits by our author, and one upon a fowl by M. Desportes, which we regret our limits prevent us from extracting. Some cases are also quoted from *Hoffman*, and other authors, illustrative of its effects upon the human system.

Although some botanists have formed a genus Ignatia, of which the species *amara* is supposed to furnish the bean known under the name of St. Ignatius, yet, our author is of opinion that this seed is the production of a plant belonging to the genus Strychnos. It is irregularly shaped, more or less angular, hard, black, and very bitter. Six grains of it proved fatal to a moderate sized dog.

M. Orfila deduces the following conclusions from his experiments with these species of Strychnos:

" 1. The upas-tieuté, nux vomica, and the faba St. Ignatia, are very powerful poisons to a great number of animals, and also to man. 2. They may be regarded as excitants of the spinal marrow, upon which they act, producing tetanus, immobility of the thorax, and consequent asphyxia, which destroys the animal. 3. Whatever may be the surface of the body to which they are applied, they are absorbed, carried into the course of the circulation, and operate through the medium of the veins, as was first observed by M. Majendie*. 4. They act very quickly when injected into the pleura, the peritoneum, or the jugular vein; more slowly when applied to the exterior, or injected into arteries distant from the heart; and their effects are still more tardily manifested when they are applied upon mucous surfaces. 5. It produces no effect when the spinal marrow is raised by means of a slip of whalebone. 6. The aqueous extracts of nux vomica and St. Ignatius bean, act more powerfully than these seeds in the state of powder; but less so than their resinous extracts. 7. None of these poisons inflame the surfaces to which they are applied."

Of Angustura *Pseudo-ferruginæa*. This title has been given by Humboldt to a bark, named by the French druggists *Angusture fine*; and which he supposes to be that of a tree belonging to the genus *Bomplandia*, of which the true Angustura, or Cusparia of the London Pharmacopœia, is the bark of the species

* Vide his Essay upon *Absorption*.

*Trifoliata.* As it possesses very powerful poisonous qualities, we extract the detail of its characteristics, quoted from *Planche:*

"This bark is generally quilled, and of a yellowish grey colour within. Some specimens of it are covered with an epidermis studded with whitish excrescences; others with a substance which resembles rust of iron, and possesses some of its properties. Some are more or less smooth, and others very rough: the latter in general are thicker and more bulky; but, although they differ in aspect, yet, they possess the same chemical properties. The powder of this false angustura is of a grey colour, resembling that of ipecacuanha, and has the odour of that root. It is so bitter, that many persons cannot taste it without being sick.

"If this powder be macerated in water, in the same proportion and for the same length of time as true angustura, the infusion, on being filtered, has a pale yellow colour which is not altered by the air, a faint odour, and a bitterness equal to that of the bark. Sulphate of iron throws down from it a deep black precipitate; and nitrate of silver a white, which, in five or six minutes, changes to black. Sulphate of copper forms in it a precipitate, less coloured and less copious than in the true angustura. It is not affected by solution of isinglass.

"Water sharpened with muriatic acid and mixed with the powder of this false angustura assumes a beautiful bright green colour, and if prussiate of potass be added, prussian blue is soon afterwards deposited. The same circumstance takes place if the yellow powder, which covers the bark, be treated with muriatic acid, an evident proof that this substance is of a ferrugineous nature. This effect does not take place when the true angustura is treated in a similar manner.

"The decoction of ferrugineous angustura is deeper coloured than the infusion; and, like that of the cinchonas, although transparent when hot, yet, becomes turbid as it cools. The metallic salts already mentioned act nearly in the same manner upon the decoction and infusion of ferrugineous angustura."

The experiments of our author upon dogs with the preparations of this bark, prove that its action resembles that of nux vomica and the other species of strychnos: and that the yellow bitter matter is apparently the most active part.

An extract of a letter from Professor Emmert, on the poisonous properties of this bark, is added; but as we have been favoured with a communication from the professor, a translation of which we mean to lay before our readers, we will not now enter further upon the subject.

Of the *Upas-antiar.* The poison is a milky, bitter, yellowish juice, which exudes from the tree. It is not fatal when the tongue is slightly touched with it, or it is applied upon the skin: but when introduced into a wound it kills both men and other animals. In one of the experiments of our author, how-

ever, the sciatic nerve was isolated, and more than twenty drops of the poison applied upon it during an hour, without the animal sustaining the smallest inconvenience. Five experiments, which are detailed, led to the following conclusions:

"1. That the upas-*antiar* is very poisonous when it is injected into the carotid artery, the cerebral pulp, or the jugular vein; that it is less so when injected within the pleura, still less when it is applied to the cellular tissue, and very considerably less when it is introduced into the stomach. 2. That it is absorbed, carried into the course of the circulation, and acts upon the brain and spinal marrow; which is proved by the loss of sensibility, the piercing cries, transversion of the head, and the drawing of the muscles of the face that take place. 3. That it acts also as an emetic.

Our author notices the opinion of Mr. Brodie and of M. Emmert, that this poison acts upon the heart, but without giving his own opinion on this part of the subject.

Of the *Ticunas* or *American Poison.* This is a compound poison, prepared, as M. Condamine asserts, from more than thirty different plants and roots, by the Indians. It is soluble in water, the mineral and the vegetable acids; does not effervesce either with acids or alkalies, nor change the juice of radishes either to red or green; and dries without cracking.

M. Orfila does not appear to have made any experiments upon this poison, but quotes the general results of those of Fontana.

"1. That its odour in a dried state is entirely innocuous. 2. Nor is any effect produced even by breathing the vapour which it exhales when put upon hot coals; hence Condamine's assertion, that women condemned to death have been killed by these vapours, is not to be credited. 3. That it exerts no action when applied to the eyes. 4. It is poisonous when taken into the stomach, but a sensible quantity is required to kill even a small animal. 5. That it produces death when applied to the skin if the surface be abraded, although not always, nor under every circumstance: large animals more easily resist the action of this poison; and even the smallest animals, when not destroyed by it, soon acquire their wonted health. 6. It requires the hundredth part of a grain of ticunas to kill a small animal, and the poison must be in a state of solution before it can prove fatal, or produce any sensible derangement of the animal economy. 7. That poisoned wounds of the muscles are more deadly than those of the skin, the ears, or the combs of fowls. 8. That arrows armed with dried ticunas are more dangerous and deadly than the poison dissolved in water, and simply applied to a wounded surface. 9. But the poisoned arrows are more deadly if they be soaked in hot water; and still more so if they be placed in the poison boiled to the consistence of a jelly. The symptoms more commonly produced by this poison are convulsions, faintings, and the total loss of motion and feeling. An animal, who at the moment of being struck by

one of these arrows is in the state of the greatest liveliness, is almost instantly deprived of motion and feeling, and at the point of death. If it does not die, however, it soon recovers and appears well, although it may sometimes remain for many hours in a lethargic state, without giving any manifest signs of life. 10. The American poison does not so quickly affect an animal as the poison of the viper; the effect of the American poison is also more vague and variable: but both may be cured by cutting out the part, or by amputation. 11. It kills, however, instantaneously, when injected into the jugular veins; but does not coagulate the blood like the poison of vipers. 12. It produces no sensible change upon the economy of the living animal when it is applied to *completely isolated* nerves, either cut or entire. 13. That the muscles of animals killed by this poison are much paler than before; the veins situated near the heart are swelled, and the blood darker; but the heart, the auricles, and the abdominal viscera remain unaltered; the lungs also are covered with livid blotches; and under some circumstances they appear putrified. 14. It attacks the irritability of the muscles, although not that of the heart. 15. Adders and vipers are not affected by this poison."

*Of the Woorara.*—This is a poison very much resembling the *ticunas*, with which the Indians of Guyana arm the points of their arrows. According to Mr. Brodie, whose experiments are quoted by our author, it is absorbed by the veins, destroying the functions of the brain, and consequently those of the lungs.

*Of Camphor.*—M. Orfila, before examining the action of this substance on the animal economy, details its physical and chemical properties. He observes, that camphor introduced into the stomach of dogs in a dose of two or three drams, produces deleterious effects, which are almost always followed by death; and these effects are more energetic when the camphor is injected into the veins.

"Quel est le mode d'action," he then demands, "de cette substance vénéneuse?" and in answer describes ten experiments made with it upon dogs, from which he concludes,

"1. That when three or four drams of camphor, dissolved in oil, are introduced into the stomach of a dog, they are rapidly absorbed, carried into the course of the circulation, and act by exciting powerfully the brain and whole nervous system, so as to occasion the death of the animal in a very short time, in the most horrible convulsions. 2. That when it is directly mixed with the blood, by injecting it into the veins, it produces similar results, but more rapidly. 3. The same effects are also produced, although more slowly, when it is applied to the cellular tissue in the inside of the thigh. 4. That in almost every instance the animals die in a state of asphyxia, the consequence of suspended respiration; or at least of the difficulty with which that function is performed during the convulsive paroxysm. 5. That the analogy which exists between the

action of the camphor and that of the different species of *strychnos*, described by *Magendie, Delisle,* and *Desportes,* is not sufficiently close to allow us to regard their effects as identical, the *strychnos* particularly affecting the spinal marrow, whilst camphor acts upon the whole nervous system, and chiefly upon the brain. 6. That camphor in fragments is not digested, but exerts a local action, terminating in ulceration of the mucous membrane of the stomach, and death. 7. If it act upon the nervous system in fragments, it must be owing to a more minute division of some of its parts. 8. Finally, artificial camphor, in a dose of half an ounce, and even dissolved in oil, does not act on the nervous system, but its action is confined to the production of some small ulcers in the mucous membrane of the stomach."

Two cases are added to shew the effects of camphor on the human system. In one of them, two scruples dissolved in olive oil having been swallowed by mistake, the effects were vertigo, cold extremities, great anxiety, cold sweats over the head, a slight delirium accompanied with somnolency, and the pulse small and languid. These symptoms were followed by those of high excitement, which gradually subsided and left the patient in a state of health.

Of Menispermum *cocculus*, Coque du Levant.—This is the fruit of a plant which grows in the sand, among the rocks upon the coasts of Malabar, the island of Ceylon, and other parts of India; generally under the shade of large trees, round the trunks of which it entwines itself, climbing to their highest branches. The fruit is black, and about the size of a large pea. The ligneous pericarp is covered with rugosities, and encloses a bitter kernel, of a whitish colour, friable, roundish, or sometimes oblong and a little reniform, and divided into two lobes by a sinous ridge. According to the Analysis of M. Boullay, the kernel contains,

"1. About half its weight of a waxy concrete fixed oil: 2. A vegeto-animal albuminous substance: 3. A peculiar colouring matter: 4. 0·2 of a new bitter principle, crystallizable and poisonous, to which M. Boullay has given the name of *picrotoxine*: 5. 0·5 of fibrous matter: 6. Malic acid, probably in the state of acidulous malate of lime and of potass: 7. Calcareous phosphate: 8. A little iron and silex."

The attention of physicians was first turned to this seed by observing its deleterious effects on birds, goats, crocodiles, and other animals. Dr. *Goupil*, of Nemours, communicated some interesting facts on the subject; from which he concluded,

"1. That the menispermum *cocculus* is not only a poison for fishes, but also for different carnivorous quadrupeds, and very probably for man. 2. That it may be classed with the irritant vegetable poisons. 3. That the woody pericarp is only emetic, even to fish, in whatever dose it is administered. 4. That the kernel con-

tains the poison. 5. This poison is not sensibly altered by the succus gastricus and the vital action of the digestive organs. 6. It passes, on the contrary, unchanged, into the absorbent system; so that the flesh of fish that have eaten it irritate the stomach and intestines of animals that eat them, almost as much as the fruit itself. 7. The fish that eat it do not all die in the same time. Roach, pollard, bream, perch, tench, barble; such is the order in which these fish resist it; the roach is the most easily killed; the barble is the longest of dying."

The barble, when eaten after having fed upon this poison, produces the most deleterious effect, probably, as our author observes, from its being able to contain in its system a greater quantity of the poison before it is killed by it.

So poisonous is the picrotoxine that M. *Boullay* killed a strong frog by giving it a single grain of it mixed with crumb of bread; whilst the concrete oil, the vegeto-animal substance, the colouring matter, and even the water distilled from the seeds, produces no deleterious effect. In order to ascertain its mode of action, M. Orfila made a series of experiments, from which he drew the following conclusions:

"1. That the pulverised fruit is a powerful poison for dogs. 2. That it acts like camphor upon the nervous system, and chiefly upon the brain. 3. That it cannot be regarded as an acrid, or irritating poison, as M. *Goupel* supposed. 4. That the picrotoxine is the active part. 5. That when it is very coarsely pulverized, it produces merely nausea and vomiting. 6. That emetics are the best antidotes, whilst the poison yet remains in the stomach."

M. Orfila next treats of the poisonous fungi *(champignons)*, beginning with the AGARICS.

Of the *Bug Agaric*, Agaricus *Muscarius*, la Fausse Orange. This fungus, which belongs to those with an incomplete volva, acts chiefly by powerfully inflaming the mucous membrane of the stomach, in which the liver also frequently shares. In some French soldiers, who were poisoned by eating it, the dissection of the bodies *post mortem* presented the following appearances: the stomach and intestines were much inflated with a very fœtid gas, and the former contained some blackish liquid; their interior surface displayed marks of inflammation and gangrenous blotches; and in many parts, the mucous membrane of the small intestines was completely destroyed.

The inhabitants of Kamtschatka, as *Kraicheminckow* relates in his Natural History of that Settlement, prepare an intoxicating beverage with agaricus *muscarius* and epilobium *angustifolium*, which occasionally excites a morbid delirium, accompanied with despair. The servants, also, who drink the urine of their intoxicated masters, feel the effects of this fungus.

The Agarics with a complete volva, Agaricus *Bulbosus* and Agaricus *Bulbosus Vernus* of *Bulliard*, l'Agaric Bulbeux et l'Agaric Printanier, which are probably varieties of each other, and Agaricus *Conicus* of Picco, l'Orange-souris, also appear to act locally, inflaming and destroying the mucous membrane of the stomach and intestines; as do the following, which have no volva: Agaricus *necator* of Bulliard, l'Agaric meutrier; A. *pyrogalis*, l'Agaric caustiqué; A. *stypticus*, l'Agaric styptique; A. *lactifluus*, l'Agaric laiteux; and the Pepper Agaric, Agaricus *piperatus*.

Several other poisonous fungi are noticed by our author; but we must refer our readers to the work itself; and conclude this part of our Analysis with the detail of the indications by which the mushroom tribe, which are of a suspected nature, may be distinguished.

All those may be regarded as suspicious and of a bad quality which grow in marshy shaded places, as thick forests, where the sun has no access: their substance is softer, more open, more porous, and moister than the edible mushrooms. They have besides a more disagreeable appearance, and a more or less humid and dirty looking-surface. Those also which are dusky and change colour when cut, or which exhale a strong unpleasant odour, or have a gaudy colour, or many very distinct hues, particularly if they have originally been covered by an envelope, and are found in shady places, ought not to be eaten. Those which have soft bulbous stalks, or fragments of skin adhering to their surface, or which grow rapidly and corrupt very quickly, should also be rejected. It has been generally supposed, that fungi lose their deleterious properties by being dried; but this is a rule to which there are many exceptions, and which should therefore be cautiously admitted.

M. Orfila next examines the action of *alcohol* on the animal œconomy; and, from the results of his own experiments and those of other authors whom he quotes, concludes,

"1. That alcohol acts in the same manner upon dogs, cats, and rabbits, as upon men. 2. Its action is more energetic when taken into the stomach, than when injected into the cellular substance; but still more so, when it is injected into the jugular vein. 3. It first excites the brain, to which succeeds coma and insensibility. 4. Its first effects result from the action it exerts on the extremities of the nerves, and which is propagated to the brain; but it is nevertheless afterwards absorbed. 5. There is no identity between its action and that of opium. A. Opium is absorbed before it acts; and is much more active when injected into the cellular substance of the thigh than when introduced into the stomach, because it is more quickly absorbed: on the contrary, as alcohol acts on the extremities of the nerves, its effects are more rapidly produced when it is taken

into the stomach, than when injected into the cellular substance of the thigh. B. Alcohol constantly produces an encreased degree of excitement, of various duration, in men and in dogs, and is followed by coma and insensibility; whilst the first effect of opium is drowsiness, always accompanied with paralysis of the hind extremities in dogs, and followed by horrible convulsions; so that the animals lay in a state of high excitation. C. Opium does not inflame the coats of the stomach, which alcohol does to a great degree."

These conclusions agree with those of Mr. Brodie, who maintains, that alcohol acts sympathetically upon the brain, through the medium of the nerves of the stomach.

Two experiments with *sulphuric ether* upon dogs, both of which proved fatal, are detailed. In the one the ether was introduced into the stomach; in the other it was injected into the cellular substance in the muscle of the thigh. In the former case the stomach was strongly inflamed; but from the latter, no just inference can be drawn, as the animal was very weak, and did not die until the fourth day after the application of the ether.

Our author does not appear to have made many experiments with the gases; but he quotes those of Hallé and Nysten on *carbonic acid gas;* of the last-mentioned author and Dr. J. Davy, on the *gaseous oxide of carbon;* and of M. Nysten on carbonated hydrogen gas. He, also, notices the experiments of M. Tessier and others upon Ergot *(secale cornutum)*, and touches lightly on the effects of the following plants, which he conceives ought to be placed in the class of his arrangement now under observation:—*Common Darnel*, Lolium *temulentum*, Ivraie; *Manchinel*, Hippomane *mancinella*, Mancenillier; *Perenial Dog's-Mercury*, Mercurialis *perennis*, Mercuriale des Montagnes; *Common Parsley*, Chærophyllum *sylvestre*, Cerfeuil sauvage; *Broad-leaved Water Parsnep*, Sium *latifolium;* and *Myrtle-leaved Sumach*, Circaria *Myrtifolia*.

Some very curious cases follow, to prove the deleterious effects of strongly odorous plants on the animal œconomy; two of which, in particular, we regret our limits prevent us from laying before our readers. We are inclined, however, to believe with our author, that in every instance these effects depend more on idiosyncracy, than on any absolutely poisonous principle in the odour of the plants. The symptoms usually induced, are, heaviness, palpitations, syncope, convulsions, cephalalgia, aphonia, and many other nervous sensations, and even asphyxia.

Having finished his investigation into the properties and effects of the particular narcoto-acrid poisons, M. Orfila takes a review, as in the conclusion of the former classes, of the symptoms produced by them, the injuries done by them to the

textures of the body; and their general action upon the animal oeconomy; and then proceeds to detail the treatment which cases of poisoning by them require.

He commences by observing, that all the experiments which have been made with the view of discovering an antidote for the different poisons of this class have proved fruitless: "*dans l'état actuel de la science, on ne connait aucune substance qui ait la faculté de décomposer ces poisons et de les transformer en un corps incapable d'exercer une action nuisible lorsqu'ils ne sont pas vomis.*" All that can be effected, therefore, is to diminish the violence, and avert the dangerous tendency of the symptoms they induce.

The following are the means to be employed in combating the effects produced by Belladonna, Datura *stramonium*, Tobacco, Digitalis, Anagallis *arvensis*, Aristolochia *clematitis*, the different kinds of Hemlock, the rose, the laurel, and the rue.

"1. If the poison have not occasioned copious vomiting, two or three grains of tartar emetic, and 20 or 30 of ipecacuanha, mixed in a small quantity of water, should be administered, to favour its immediate expulsion; and there is little danger of hastening absorption, if the quantity of water in which the emetic is mixed be not considerable. The action of vomiting should be aided by titillating the throat with a feather.

"2. If some time have elapsed since the poison was swallowed, and it is supposed to have passed into the intestinal canal, two or three grains of tartar emetic, and from an ounce to an ounce and a half of sulphate of soda, should be given; exhibiting at the same time purgative glysters.

"3. If after these means have been employed, symptoms of cerebral congestion remain, blood-letting from the jugular vein must be had recourse to, and repeated according to the temperature of the patient, and the benefit derived from it.

"4. Acidulated drinks, particularly vinegar largely diluted with water, should be exhibited in small doses, and frequently repeated. If these acidulated liquids, however, be strong, or not exhibited until twenty or thirty hours after the poison has been taken, and inflammatory symptoms have come on, they prove hurtful; and this is also the case if they are exhibited before the expulsion of the poison, for the following reasons:—1. they do not favour vomiting; 2. they dissolve the active parts, and facilitate their absorption.

"5. If these means have allayed the nervous symptoms, the inflammatory, which almost always follow, must be combated by changing the acidulous fluids, for demulcent infusions and decoctions; and leeches may be applied upon the abdomen."

That author adds, that in the event of poisoning by the application of any of the narcoto-acrids to the exterior, besides the means above described, a ligature should be applied above the poisonous part, and the wound cauterized; with the view of preventing, as much as possible, the absorption of the poison,

As the *Upas-tieuté*, *Nux vomica*, *St. Ignatius' bean*, Angustura *pseudo-ferruginea*, *Ticunas*, *Woorara*, *Upas-antiar*, *Camphor*, and Menispermum *coccullus*, produce symptoms of asphyxia; in the treatment of cases of poisoning by them it is necessary, besides employing emetics and other means for expelling the poison, to practice tracheotomy, and the artificial inflation of the lungs with air. In the case of wounds by weapons, poisoned with any of these substances, the application of a ligature, and the deep cauterization of the wounds are the means recommended. We are of opinion, however, that more benefit would result from the complete excision of the weapon, and then the immediate application of cupping glasses with an exhausting syringe over the part.

With regard to the treatment of cases of poisoning by the fungi *(champignons)*, M. Orfila details the results of a series of experiments, made with the view of ascertaining the value of the different substances which have been considered antidotes in such cases. *Vinegar* is useful when the poisonous fungus has been expelled by vomiting; but the reverse is the case if it still remain in the stomach, as this acid dissolves the poisonous principle, and thereby facilitates its absorption. *Common salt* (muriate of soda) acts in the same manner as vinegar; and therefore requires to be employed under the same limitations. *Sulphuric ether*, as it also takes up the poisonous part of the fungi, should not be employed previous to the evacuation of the stomach; but afterwards it is of the greatest utility. *Emetics* and *emeto-cathartics* are the most useful remedies in the cases under consideration. *Volatile alkali* is more hurtful than salutary; and oil, theriac, butter, and milk, are useless in this kind of poisoning.

In cases of poisoning by the fungi, therefore, our author advises that the stomach and bowels should first be cleared by a mixture composed of 3 or 4 grains of tartar emetic, 24 grains of ipecacuanha, and from ʒvi. to ℥i. of sulphate of soda, with a proportionate quantity of water; castor oil may also be given, and glysters of cassia, senna, and sulphate of magnesia exhibited. The poison being evacuated, spoonfuls of a potion containing a large dose of ether should then be frequently swallowed; and recourse be had to mucilages and other demulcents, should the patient complain of pains in the lower belly. If the poison, however, has been taken long before the assistance of the practitioner is required, and inflammation has already come on, then evacuants are improper; bleeding and other antiphlogistic means must be resorted to, and afterwards tonics, such as wine and cinchona, be prescribed, should life be preserved.

In poisoning by *Alcohol and other spirits*, that is, when

drunkenness has produced coma and other alarming symptoms, M. Orfila advises the administration of emetics, and afterwards acidulous fluids; bleeding the patient if he be young and robust; the exhibition of irritating glysters, and sponging the whole surface of the body with vinegar.

In the directions for the treatment of *asphyxia by the smoke of coal, and by carbonic acid gas*, there is nothing that is not generally known. For that of poisoning by *Ergot*, the practice of Read (*Traité du Seigle ergoté, Strasbourg*, 1771) is quoted at great length; but we must refer our readers to the work itself.

With regard to the deleterious effects of *odorous plants*, our author simply observes, that the flowers must first be removed; aphyxia, if it has been produced, treated in the usual manner; and if cephalagia, syncope, or other nervous symptoms, be the consequence, tonics and antispasmodics must be employed.

*(To be continued.)*

# PART III.

## SELECTIONS.

*Description of Ruggieri's Machine for rubbing in the Mercurial Ointment.*

"It was formerly the general custom at *Naples*, to have the rubbing in of the mercurial ointment performed by a particular set of people, solely employed for this business, as a peculiar trade, which, however, was necessarily attended with great inconveniencies. Mr. *Ruggieri*, wishing to obviate these, at last invented a Machine, by means of which, the patient himself, without any fatigue or troublesome posture, may perform this operation upon the soles of his feet.

"The Government patronized this useful invention; and Mr. R. having improved its construction, by which a single attendant was enabled to perform this operation on several patients at once, the introduction of this machine into all public hospitals was ordained.

"The inventor calls it *Torno frottore*. The first construction for a single patient was very simple. A cylinder is covered

all round with two pieces of soft leather, of the breadth of the sole of a foot: this turns at both ends upon metal pivots, which are kept fixed in their places by two rims. The patient is placed in an arm-chair, to the legs of which the machine is affixed, at a proper distance for him to place his feet against the surface of the cylinder, covered with the leather. When the soles of the feet are warmed by the friction of the leather, the allotment of ointment is spread upon the same; and by the motion of the cylinder, it is rubbed in. The patient, further to facilitate this purpose, lays hold of an elastic bow, the line of which is passed round the pivot of the cylinder; then, by drawing the bow towards himself, and pushing it away alternately, a rotatory motion is communicated to the cylinder, and a stronger or weaker affriction into the soles of the feet thereby produced. The quantity may be completely rubbed in, in half or three quarters of an hour.

"The alteration necessary in the machine for the use of several persons at the same time, consists in fixing in the middle a kind of pump-brake, which puts two rows of cylinders to the right and left in motion, and which may still be lengthened in such a manner, that four, eight, or more patients, sitting in rows opposite to each other, may place their feet, each in his own partition, against the four long cylinders, and thus this operation be performed on them at one and the same time."—*Vide a Journey in Italy, by the late Dr. Loder, published at Konigsberg in* 1814.

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# *PART IV.*

# FOREIGN MEDICAL SCIENCE AND LITERATURE.

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### ANIMAL MAGNETISM.

I.—We have at various times casually alluded to the progress of Animal Magnetism on the Continent; because it is a part of our duty to report the state of foreign as well as of domestic medicine. This practice seems to have taken such deep root, and to meet with such credit in Germany from physicians of established character and talents, that we can no longer re-

frain from the expression of our regret and astonishment, that such infatuation should exist in a country eminent for its cultivation of the sciences.

The marvellous cases transmitted to us for insertion, we have hitherto universally rejected. But although it is our wish and our interest to select such matter as may prove practically useful, yet instruction is often obtained, by exhibiting, in their true colours, even the aberrations of the human mind in its thirst for knowledge. With this view therefore, and to gratify curiosity, we have selected, but greatly abridged, from a recent Number of *Hufeland's* celebrated Journal, two Cases, which are reckoned remarkable *even in Germany*. On the theory and practice of *Animal Magnetism*, we have nothing further to bestow but—utter contempt;—and on its medical advocates—our pity.

## Case I.

*Dr. Klein's remarks on a Magnetic Somnambulismus without Magnetization.*—" From the time that *Mesmer* discovered Animal Magnetism, there was scarcely ever a more remarkable case, than that which Dr. *Klein* of Stuttgart witnessed in the summer of 1812. The patient, a girl 21 years of age, was all at once transported, in what *Kluge* calls, the sixth degree; in which she was afterwards only exalted by slight applications of animal magnetism. Her sense of foreboding had arrived at such a rare degree, that she quite clearly foretold the medicines that would be required for her cure: without being acquainted with them, she gave a full explanation of symptoms present and to come; she acted at a distance, and revealed the thoughts of her physician. She had taken cold when walking: during which having also received a fright, her menses, which had just begun, were suppressed. Her disorder continued from the 17th of June to the 9th of September; but it arrived at its acmé on the 11th of August. It is remarkable in this case, that two persons were required to co-operate in the cure, who also sometimes acted separately; but when their action was united, the effect was wonderful. Dr. Klein saw her for the first time on the 28th of June. She was asleep; but her eyes were open, and staring upwards. He spoke to her, but she did not answer till he *thoued* her. She then talked of various dangers she had to dread; saw a hermit on the top of a high mountain, holding a crystal slab before her, on which the words, the 11th of August, were plainly written, and underneath the name of *Klein*. She said the hermit told her she was to die on the 11th of August. " Thou alone, Dr. Klein," says she, "canst save me; but if thou dost not treat me as I ought to

be, I shall die!" She then mentioned numerous medicines and remedies that her first physician would prescribe, all which Dr. Klein confessed he had just been planning within himself; she consequently knew his thoughts!

"On the 30th of June, Dr. K. put the following questions to her: "When will such a one be delivered? Will she have a boy or a girl? and, Shall I have any business with it?" She answered, "She will be safely delivered of a boy on the 20th of July, and afterwards Dr. K. will have to attend." The person was really safely delivered of a boy on the 20th of July; and on account of frequent faintings in consequence of hæmorrhage proceeding from the secundina being kept back, the Doctor was employed with her half the day. Dr. K.'s brother being very ill of a typhus, and given up by three physicians, he was thinking, without having spoken, of him; "Be easy," said she instantly, "thy brother shall not die; but he must suffer yet awhile." Three days afterwards, he was on the point of death, but ultimately he recovered. Dr. K. was attending a maid servant who was ill of a nervous fever; "Thou wilt think she is dying," said she, "for it will indeed come to the utmost with her; but she shall not die." A few days after the servant was taken with delirium, hiccup, hippocratical countenance, swelled abdomen, subsultus tendinum, trembling pulse, involuntary evacuations, and cold extremities; but she revived, and recovered from that very night. She knew Dr. K. was going to eat crabs, and begged for some, though he did not know it himself. She knew he was writing a prescription, and might have wrote a few grains less, which could do no harm. Dr. K. had ordered six grains of musk to be divided and taken twice in the course of one hour. Dr. K. twice put her to sleep by thinking of her at a distance. She had foretold what would happen on the 11th of August. She said, on the 10th of August, before ten o'clock at night and five in the morning, she should repeat all she had hitherto said; that by five o'clock she should be taken with violent spasms in the chest, to which sinapisms would be applied, but the paroxysms would continue nevertheless till seven o'clock. By twelve a fainting fit, that would last two hours, would occur; every body would think her dead; but if she did die it would not be till between seven and eight; and that if she was suffered to become cold it would be a symptom of death. By seven o'clock the most violent spasm would come on, and if she did not die, she should recover by ten o'clock at night.

"All this happened exactly as she predicted; but care was taken that she should not become cold. At the time a dreadful opisthotonos ensued, and lasted a whole hour. She was

suddenly thrown up and stood with her occiput and heels on the bed, her body forming a complete arch; in this posture she remained from five to eight minutes; she then fell down, respired once, and was suddenly thrown up again. Deadly paleness overspread her whole frame, her pulse was hardly perceptible, and the face became hippocratical. Five minutes now remained of the time when she, according to her forebodings, might die; when suddenly the opisthotonos began to abate, and she exclaimed in ecstasy, "Ah! my good old man!" She now became calm, and her countenance became like that of a saint!!"

The artful impostor then details a rhapsodical account of her vision, in which she describes that she on particular days suffered the extremity of torments, the fulness of hope, disappointment, &c.: but with which account we will not insult our readers.

CASE II.

*Dr. Renard's, of Mentz, Remarks on Somnambulismus, as a most remarkable Phænomenon in Hysteria.*—"On the 28th Feb. 1811, Dr. *Renard* was sent for to Mrs. M. A. aged 23, whom he found in most dreadful convulsions and opisthotonos; tossing about in the bed, so that five persons were scarcely able to hold her. She was slightly convulsed at six A.M. after a quarrel she had with her husband. Mrs. H. was of a wild and sanguine temper; the Doctor had attended her before when ill of an active uterine hæmorrhage, and afterwards for hæmorrhoides vaginales. The predisposing cause of the present case was a suppression of the menses, from dancing about two days previously.

"Ten minutes after Dr. R.'s arrival the patient became gradually calmer, but remained motionless. Her eyes were open and torpid, she looked well, and her limbs were moveable; but she was as senseless as during the convulsions; she neither saw nor felt when she was pricked so as to draw blood from her; the pupil of the eye was insensible to the impression of the light held before her; her respiration was unimpeded, and her pulse quite healthy.

"Dr. R. directly considering the patient as cataleptic, lifted up the bed covering, and put the question of, "How do you do?" in a low voice to the pit of her stomach; upon which she answered plainly, "Middling." "How long," continued he, "will you remain in this state." "I do not know," was the answer. "Where do you hear me?" She lifted her left arm, and pointed to the pit of the stomach. Dr. R. now made the company present repeat the same questions aloud in her ears; but she did not hear. Dr. R. now spoke to her on the points of

her fingers and toes, and she heard him. This was likewise the case when Dr. R. put the points of the fingers of one of his hands on the pit of her stomach, and then spoke on the point of a finger of his other hand.

"This woman, one of the lowest order, and quite uncultivated, presented a true picture of cataleptic phœnomena.

"Dr. R. now sent for several medical men, and among others for Dr. *Werthofen*, to witness this case.

"Dr. R. then took a string of 17 feet long, and put one end of it in one of Dr. W.'s hands, whilst with the point of his other he touched the patient's pit of the stomach; he then flung the string out of the window, which he afterwards shut; then went himself into the yard, took the string in his hand, drew it tight, and spoke upon it in his usual tone of voice, which the patient heard, and answered by making a sign with her left hand. Again the convulsions returned, in the shape of opisthotonos; during which the youthful strength of the patient gave astonishing power to the muscular contractions. This storm, however, abated in a few minutes. Dr. R. now formed a chain of ten people, Dr. W. touching with the points of his fingers of one hand the pit of the stomach of the patient, joining his other to the second person, while Dr. R., who terminated the chain, stood outside of the room on the landing place, and laid hold of the last person's hand with one of his, and spoke on the finger of his other hand, and the patient heard him through the chain of ten persons, as well as if he had spoken upon the pit of her stomach.

"After these experiments Dr. R. took pains to recover her after the *Petetinian* method; he therefore applied one hand to the pit of her stomach, and the other to her head; he then breathed towards the point of her nose; upon which a few deep sighs ensued, and the patient was restored! Upon being asked for the cause she confirmed the above detail!"

PHYSIOLOGY.

II.—*Mr. Von dem Busch*, in his *Dissert. inaug. anatom. physiologica de Intestino cæco, ejusque processu vermiformi (Gottingæ*, 1814), represents the function of that organ in a new light.

"In the spirit of *Merkel*, who has rendered himself celebrated by his indefatigable experiments in comparative anatomy, and who has proved the analogy between the general and a chylo-poetic system, *Mr. Von dem Busch*, according to the law in natural philosophy, that each system is contained in its distinct organs, endeavours to establish an analogy between the intestinum cœcum and the stomach.

"He divides the whole intestinal canal into two parts, the

upper and the lower. In the former he reckons, the pharynx, stomach, duodenum, and ileum; in the latter, the cœcum, its processus vermiformis, the colon and rectum.

"The stomach and intestinum cœcum, have, in this comparative view, the greatest affinity. Both are hollow receptacles, which differ from each other only in their outward form, size, and outlets. Both are provided with numerous blood-vessels and nerves, and seem to be destined for a similar office. If the processus vermiformis be considered as an organ secreting mucus; and if, as *Mr. Von dem Busch* thinks probable, this bear some affinity to the saliva, and the pancreatic juice, it is quite analogous to the nature of the case to consider the processus vermiformis as a second glandula salivalis, or pancreas.

"The ileum and rectum are both organs of excretion in the tractus intestinorum. The former evacuates the excrements into the lower part, and the latter carries them out of the body. The former forms the valve of the colon, and the inner membrane of the rectum joined to the skin covering the surface of the body, forming the anus.

"If we inquire into the use of the cœcum, we must first examine whether it bears any part in the operations of digestion. Almost all anatomists seem inclined to this opinion. *Mr. Von dem Busch* considers it as a second stomach; and thinks, that those aliments which have not been completely digested in the stomach and continuous intestines, are re-digested here, and the nutritive particles extracted. The mucus secreted, particularly in the processus vermiformis, seems to contribute much towards digestion.

"His reasons for supporting this opinion, are the following:

"1. We frequently find in dissections, substances in the cœcum, which the stomach could not completely digest. Nature, it seems, intended to repeat in this intestine the trial of digesting those substances which had passed undigested from the stomach. It is well known, that raw substances always remain longer in the cœcum, and are mixed with the mucus secreted from it's inner surface, and that of the processus vermiformis. Glisson, in his Treatise on the Stomach and Bowels, mentions the finding of a great quatity of cherry stones in the intestinum cœcum of a young woman, which had been retained there forty days.

"2. If we examine the structure of the cœcum in mammalia, we find the carnivorous to have either none, or at least a very small one; in those that feed variously, as in man, it is of the middle size. From the researches of physiologists, it is sufficiently proved, that flesh is easier of digestion than vegetable food; it may be more congenial to the animal body, of course

easier assimilated, and made fit to pass into a new form, azote preponderating in it. But in vegetables, the carbon and hydrogen preponderate, and the azote is almost entirely wanting. Vegetables possess nutritive particles, but some are hard of digestion, like fat, oil, and mucus; and others are of easy digestion, like albumen and materia sacchari. The tractus intestinorum in carnivorous animals, as it assimilates every thing easier, may of course be shorter and less complicated, than in those feeding on vegetables; for the juices of the plants not being so congenial to the juices of the animal, they must be the oftener mixed with them, as is done in those that ruminate; or else be gradually more assimilated by a longer stay in the tractus intestinorum. Mr. V. B. therefore is of opinion, that a second or after-digestion takes place in the large intestinum cœcum of hares, rabbits, and all those of the glires kind, that mostly feed upon herbs and dry bark. In the ruminating class, digestion is completed by a four-fold stomach; of course so large a cœcum was not required as in the non-ruminating animals. Man has already been sufficiently demonstrated by Blumenbach and others to be a glutton; and this is farther proved by the structure of his intestinum cœcum, which is shorter and narrower than that of animals feeding on vegetables; but is larger than that of carnivorous ones. In men that eat a great deal, and particularly those that are fond of victuals hard of digestion, this organ is always found to be largest.

" 3. In birds the case appears to be the same. All those living upon seeds, like poultry; or on food of hard digestion, such as fish, &c. have two large intestina cœca. Birds of prey, or those living on carrion, have either none at all, or very small ones. But whether the digestion, as actually performing in these two intestines, or whether they only mix their juice, which appears to be similar to that of the pancreas with the victuals, he does not venture to decide. If the latter were the case, they are similar to the processus pyloris in fishes, which, by secreting a juice, are of great importance in the preparation of the chyle.

" 4. As the cœcum is existing in all classes of animals, its having some essential office in the operations of digestion, is not to be doubted. In the lowest classes of animals many small ones are to be found; and the higher the animal stands with regard to its more perfect formation, the simpler we find this organ; till at last, among the mammalia, a great variation is observed between the carnivorous and those living on vegetables. However, we may suppose, that an organ, common to all, must also have the same or a similar destination.

" 5. This is a peculiar law of Nature in animal organiza-

tion, that whenever one organ is wanting, another is larger; or that the imperfection or smallness of any one organ, is compensated by the perfection and greatness of the other. It therefore appeared very remarkable to *Mr. Von dem Busch*, to have found in his anatomical examinations of the intestinum cœcum, that in many animals, where this organ was large and perfect, the other organ necessary for digestion was either entirely wanting, or exceedingly small. Thus the prolongation of the rumen seems to supply the place of the cœcum in the sloth. In this manner the question, why this organ is very large in some animals, seems partly solved: for commonly, where the same is very large, another part is wanting; and where it is very small, the deficiency is supplied by another organ, as by the fauces.

"6. The processus vermiformis, being an organ secreting mucus, it appears probable to *Mr. Von dem Busch*, that this mucus is of a similar nature with the saliva or pancreatic juice. This may then probably be the organ that prepares the juice, which, by permeating once more the aliments in the cœcum, contributes greatly to the succeeding digestion. This opinion, first suggested itself to Mr. V. B., by his having found in the processus vermiformis, concretions similar to those found in the saliva."—*Vide Altenburgh Annals*, 1815.

BOTANY.

III.—The following account, by M. *Chaumeton*, of the Aspiolium *coriaceum*, (Wildenow*,) the root of which was some years ago introduced into the Pharmacopœiæ on the Continent, under the name of *Calahuala* or *Calaguala*, and has been lately very accurately described in the 23d Number of the *Flore Medicale*, may not be uninteresting to our readers.

"It is only within these few years that the *Calaguala* has been well known in France. No one perhaps has contributed more than M. Turpin to determine accurately the characters of this cryptogamic plant; and if the description I am about to give be satisfactory, to him all the merit must be ascribed.

"South America is the native country of this fungus, which grows chiefly upon the high mountains of the Andes; flourishing in the skirts of woods, in cold and shady places; and vegetating even upon rocks. M.M. *Ruiz* and *Pavon* have frequently found it in their travels in South America. M. *Labillardiere* gathered some fine specimens of it in New Holland; and M *Turpin* has brought it from St. Domingo. The root, or at least the part commonly so called, and which with M. Turpin I am inclined to regard as an under-ground creeping

* Species Plant. tom. v. p. 268. Polypodium *adianthiforme.*—Forster, Jussieu, class 1. ord. 5.

stem, is roundish, scaly, of a reddish colour, flexible, and furnished along its whole length with slender fibres, which are subdivided into capillary filaments. The leaves, which are supported on long footstalks, rounded on one side, flattened and channelled on the other, are large, hard, coriaceous, of a deep green on the upper side, paler underneath, triply pinnate at their base, doubly pinnate towards the middle, and simply pinnate or even-lobed at the apex.

"The fructification is situated upon the lower surface of the leaves, and appears in the form of points, or little brownish-coloured tubercles, placed alternately on the two sides of the median line of each pinnula. The centre of the roots of calaguala is a soft spungy pith, similar to that of the sugar-cane, and of the colour of honey. These roots have at first a mild taste, which, however, soon becomes bitter, and exhales a rancid and oily smell. As analysed by M. Vauquelin, they gave a little sugar, a very acrid essential oil, some yellowish mucilage, a little starch, some muriate of potass, and carbonate of lime, a very small portion of acid, and a red colouring matter. These results explain, in a satisfactory manner, the physical qualities, and medical properties attributed to the roots of calaguala. They are reckoned an excellent sudorific, useful in rheumatism, gout, and even in syphilis, in South America, where this disease does not require, as with us, the use of mercury. Several physicians of Rome pretend to have cured the dropsy by a continued employment of this substance; and Dr. Gelmetti* recommends it particularly against chronic inflammation of the chest, and as a vulnerary. Professor Carminati†, however, who has repeated the clinical experiments of his countrymen, has not so favourable an opinion of the calaguala; he regards it as scarcely slightly diuretic, and in most cases it completely failed. The botanist Ruiz‡, who has set up as the defender of this Peruvian root, affirms and endeavours to prove that we must ascribe the inefficacy so unjustly imputed to it, to the roguery of the merchants and druggists, who substituted for it the roots of the polypodium *crassifolium*, and those of the Aerosticum *huaesaro*.

"The more I endeavour to reconcile the opposite opinions of pharmacologists, the more I am forced to acknowledge that the virtues of this fern have been exaggerated, and that it is not likely to prove a valuable addition to Materia Medica."

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* *Della radice di Calaguala*, 8vo. 1788.

† *Saggio di alcune ricerche su i principi e sulla virtu della radice di Calaguala*, 8vo. Paria, 1791.

‡ *Mem. sobre la legitima Calaguala*, 8vo. 1805.

# PART V.

# MEDICAL AND PHYSICAL INTELLIGENCE.

## I.—SOCIETIES AND LECTURES.

LECTURE VI.—*On the Earths employed in Medicine.* By Professor BRANDE, at Apothecaries' Hall, London.

THE principal earths employed in Medicine, either free or combined, are the aluminous earth, lime, magnesia, and barytes.

Alum is a triple salt, composed of sulphuric acid, aluminous earth, and potash, in the proportion of

| | |
|---|---|
| Sulphuric Acid | 34 |
| Alumine | 11 |
| Potash | 10 |
| Water | 45 |
| | 100 |

When heated, it fuses in its water of crystallization, which evaporates and leaves the "alumen exsiccatum" of the London Pharmacopœia. This preparation, as well as the liquor aluminis compos. is confined to external use. The latter consists of a solution of half an oz. of sulphat of zinc and half an oz. of alum in two pints of water.

Dried alum is a powerfully acting astringent, and its solution is advantageously employed in some cases of hæmorrhage, of mucous discharges, and of morbid secreting sores; it also forms an useful ingredient in some collyria. Alum has been often administered internally in the form of alum whey, prepared by dissolving about two drachms of alum in a pint of hot milk, and afterwards straining. It is a tonic and astringent, and hence its use in intermittents, hæmorrhages, and the like: the dose is from two to ten grains. It has been found of great service in pyrosis. As an astringent gargle, a solution of alum is likewise frequently employed; and the infusion of roses is a very good vehicle. There are a few other purposes to which the combinations of aluminous earth are applicable in medicine; on the whole, however, their use is limited, and the great consumption of alum is in the Arts.

Lime is another earth of little importance in the Materia Medica, but of considerable use in Pharmaceutical Chemistry. Under the name of lime-stone is included a variety of rocks, consisting principally of carbonate of lime. Some more definite direction, therefore, than that of heating *limestone* should have been given in the Pharmacopœia, which does not afford a purer lime than that purchased for its *coarser uses in the Arts*, nor so pure as that *usually made from chalk.* When shells were named in the Pharmacopœia as a source

of lime, the kind of shell should have been stated, as many contain phosphate of lime.

Lime is sparingly soluble in water, and more soluble in cold than in hot water: at the temperature of 32°, water takes up 1·8 as much lime as at 212°. One grain of pure lime requires 770 parts of water for solution, and 1 grain of hydrate of lime, or slacked lime, is soluble in 584 of water, each at 60°.

The solution of lime (liquor calcis) is seldom employed medicinally: it operates as an astringent and antacid, and by some has been advised in stone cases; there are very few, however, where its exhibition is adviseable; and it generally is productive of mischief.

Carbonate of lime or chalk retains the old name, creta præparata, in the Pharmacopœia. It is an antacid, and has been called improperly an astringent. If it checks diarrhœa, it is not because it operates as an astringent upon the mouths of the secretory vessels of the intestines, but because it neutralizes acid matter generated by imperfect digestion.

Muriate of lime, the calcis murias of the Pharmacopœia, may be procured by the dissolution of chalk in muriatic acid:—the solution, when quite saturated, should be filtered and evaporated to dryness. This salt also remains, after the sublimation of subcarbonate of ammonia; and from this source the Pharmacopœia directs it to be obtained. Though called muriate of lime, this compound must be regarded as a *chlorid of calcium*, for we cannot demonstrate that it contains either lime or muriatic acid; nor can these substances be obtained from it unless water be present, which then suffers a decomposition; and transferring oxygen to the calcium, and hydrogen to the chlorine, produces lime or oxyde of calcium, and muriatic acid. 100 parts contain 63 of chlorine, and 37 of calcium. Muriate of lime is called a tonic; and as such it has been given in certain febrile affections, and in cases of disordered digestion. It has also been extolled in scrofula, but I believe unjustly. Some mineral waters contain it, and their virtues in scrofula have been attributed to its presence.

Phosphate of lime does not at present stand in the Pharmacopœia; it was once theoretically advised in rickets and Mollities ossium, but was quite useless.

Magnesia, as an article of the Materia Medica, is a more important earth than lime. Its principal source is sea water, the solid contents of which consist of common salt and muriate of magnesia, with a little sulphate of lime; each pint containing

180 grains common salt
50 grains muriate of magnesia
6 grains sulphate of lime.

By the addition of sulphuric acid to bittern, or the mother liquor which remains after the separation of the muriate of soda, sulphat of magnesia is procured. This salt was once principally derived from certain mineral waters, especially those of Epsom, whence the terms Epsom and English salt. It has a bitter flavour, and requires about its own weight of water for solution at 60°. It crystallizes in four-sided prisms, terminated by four-sided pyramids. Epsom salt is the best

of the saline purges, and will often remain upon the stomach when other purges are rejected. Crystallized sulphat of magnesia consists of,

| | |
|---|---|
| Magnesia..... | 16 |
| Sulphuric Acid... | 32·5 |
| Water..... | 51·5 |
| | 100·0 |

As, therefore, it contains half its weight of water, the state of the salt as to dryness must be taken into the account in estimating its dose. This salt is decomposed by the subcarbonates of potash and soda, and furnishes a subcarbonate of magnesia—the Magnesiæ Carbonas of the Pharmacopœia, of which 100 parts contain,

47 Magnesia
53 Carbonic Acid.

Magnesia is directed in the Pharmacopœia to be obtained from the *carbonate* by ignition, which drives off the carbonic acid. Great care should be taken, for this purpose, that the magnesia is extremely pure; for if sulphuric acid be present, it will smell of sulphuretted hydrogen when moistened. Calcined magnesia is very apt to contain a little lime. Magnesia and the subcarbonate are used in medicine as antacids and laxatives: the latter property they can scarcely be said to possess, unless they meet with acid in the stomach and intestines; to the quantity of which the laxative effect will be proportioned. The only advantage of the calcined over common magnesia, is, that it is less apt to produce flatulency.

In a former Lecture I mentioned the advantages and disadvantages of the alcalies as lithontriptics, in which class of remedies magnesia forms an important article; but it is only of use in cases of red sand; in other cases it does harm; and by giving the urine a tendency to deposit the phosphates in the form of a white powder, induces the ignorant to believe that the magnesia itself passes off by urine. It is proper in a course of magnesia to exhibit occasional laxatives; otherwise, where itself does not purge, it is very apt to clog the bowels; it sometimes disagrees with the stomach, producing nausea and dispepsy, an effect almost always counteracted by the addition of mild bitters and aromatics.

Barytes has not found a place in our Pharmacopœia; but has been introduced into that of the Edinburgh College. The solution of the muriate is the preparation employed. It has been praised as a tonic; but being extremely poisonous, and often productive of evil, it is scarcely used. I know a case of a gentleman who took twenty drops of the saturated solution three times daily for a week: his stomach became so affected, that for many months afterwards he could retain very little food.

Mr. Brande concluded with some observations on the *Chemical Properties of the Earths*, and stated their composition as follows:

| | | |
|---|---|---|
| Lime contains | 72 per cent. | of Calcium, |
| Alumin ..... | 69 ..... | Aluminum, |
| Baryta ..... | 90 ..... | Barium, |
| Magnesia ..... | 72 ..... | Magnium. |

*A List of* CERTIFICATED APOTHECARIES.

*(Continued from p. 172.)*

Robert Marchant, *Bridgewater*
William Woodward, *Honiton*
John Ennis, *Oswestry*
Richard Robinson, *Gargrave*
Thelwall B. Maurice, *Marlbro'*
Charles Shuter, *London*
Thomas Bryant
Robert Davison, *Nottingham*
Tobias Michell
William Leyson, *Neath*
Jonathan Jarvis, *Laytonstone*
John Morris, *Tunbridge*
John Alexander, *Newbury*
Edward Tothill, *Staines*
Joseph Wright, *Birmingham*
Samuel Harris, *Petworth*
William Buckell, *Isle of Wight*
J. Ralph Whistler
Robert Bailey
William Bannister
Archibald N. Armstrong
James Church
Thomas Porter
Robert Dix, *Aylsham*
George Vicary, *Warminster*
John Garner, *Walton*
Henry W. Ward, *Gt. Farringdon*
William Compton, *Cleobury Mortuner*
G. B. Knowles, *Birmingham*
Richard Jeffreys, *Shrewsbury*
John Harding, *Ludlow*
Randell Humston, *Derby*
William Parker, *Grantham*
John Williams, *Dolgelly*
John Pell, *Wragly*
Charles Wilkinson, *Christ Church*
Thomas Dodgson, *Otley*
John S. Gent, *Winslow*
W. B. Webster, *Canterbury*
Edward Brotherhood
George Holdsworth, *Wakefield*
John Scatchard
John Ireland
Wm. Stansfield, *Todmorden*
James F. Tomlinson
Edward Milner
William Gill
John Cockcroft, *Halifax*
George Powle, *Hereford*
Edward T. Bennett
Abraham Beevor
Pendock W. Alvine, *London*
Edward Williams
Robert Ford, *Canterbury*
William Salmon, *Bristol*
Calvert Bowyer Vaux, *London*
George Bullen, *Ipswich*
John Grabham
Henry Whicher, *Petersfield*
John Edmunds
David Williams
William Hurt, *Attercliffe*
George Poynder
Henry Fidler
Charles Bingham, *Birmingham*
Joseph Bennett, *Wakefield*
G. O. Henning, *Banbury*
Jonath. A. Illingworth, *Halifax*
Charles T. Thackrah
Thomas J. Griffith, *Wrexham*
George Cursham, *Nottingham*
James Shirwin, *Pontefract*
John Spence, *Otley*
William Johnson, *Lynn*
William Hughes
John Watson, *Sunderland*
John Parker
John Harrison
William Henry Fletcher
George P. Amory
Charles Severn, *Harlow*
Charles Bailey
William Pollard
James Bailey
William Kellock
Charles Llewellyn
Thomas Maclear, *Biggleswade*
Jonathan Adams, *Over*
Charles D. Yorke
R. H. Harvey
Nathaniel Miles
Thomas Bradley, *Kidderminster*
William Sedgewick

*Examinations in Botany.*—The COURT of EXAMINERS of the SOCIETY of APOTHECARIES has given notice, that at the expiration of the present year, all candidates for a certificate to practise as an Apothecary, will be examined in *Medical Botany.*

From this regulation it must be obvious to Medical Students, that unless they embrace the opportunity the present summer offers of acquiring a knowledge of Botany, or at least so much of it as to be acquainted with the generic characters, names, and properties of all the plants included in the Materia Medica of the London Pharmacopœia, they will not be able to pass till another year.

WE have authority also for stating, that the ARMY MEDICAL BOARD have come to a determination, that *Botany* will in future constitute an indispensable part of their examination.

*The Medical Benevolent Society.*—The DIRECTORS of this truly liberal and philanthropic INSTITUTION, which embraces the interests of every Medical Practitioner resident in the United Kingdom who is a Member of it, have, with the best legal assistance, finally arranged the Laws and Regulations, by which it is to be governed: The SOCIETY is therefore permanently established.

Many liberal donations, and numerous subscriptions have been received; forming in the aggregate a considerable sum of money; and which has already been invested in the public funds, conformably with the purposes expressed in the prospectus.

The particulars of the Society may be known by applying *(post paid)* to the SECRETARY, Mr. BEST, No. 15, Tavistock Street, Covent Garden.

II.—MEDICAL.

*China Ink.*—This substance, *E-King-me* in Chinese, is not used in China solely for the purposes of writing and designing; but is also employed as a remedy in coughs, affections of the chest, fluxes, spitting of blood, and sore throats.

*Deleterious Effects of Porter.*—We have already noticed the effects of porter in producing apoplexy, confirmed by our Correspondent Mr. Gaitskell's cases on that subject; and the hint of Dr. Wilkinson, in which, however, we do not agree, that the cause is the solution of lead, produced by the machine now generally used for drawing the porter. Another Correspondent, Mr. Newman of Corsham, Wilts, states, that he has witnessed the introduction of *sulphate of iron* and *alum* into porter, by the Brewers, with the view of getting it up.—How far may these be regarded as deleterious?

III.—SURGICAL.

*Substitute for the Tympanum.*—Professor *Authenrieth,* of Tubingen, recommends, when from suppuration in the meatus auditorius externus, the tympanum is destroyed, to place an artificial one in the meatus. He introduces a slender sharp tube of lead, of an elliptic form; over the end of which a portion of a swim-bladder of some small fish, moistened, is extended, and which, when dry, is to be lightly varnished over. This instrument the Professor has found to facilitate the hearing.

*Carotid Artery.*—Mr. Dalrymple, of the Norwich Hospital, lately tied this artery for an *aneurismal tumour* in the *orbit,* thrusting forward the eye. We understand the patient is doing well.

IV.—PATHOLOGICAL.

*A Monoculus.*—In the pathological collection of Dr. *Von Walther*, at Landshut, is the head of a girl, three weeks old, presenting a real *monoculus*. The right eye and side of the head are perfect. The left eye is entirely deficient; a small portion of cellular membrane only appearing at the bottom of the orbit. The orbit itself is very contracted. The eyelids do not protrude, and are so closely united that they will admit a probe only between them. The upper nasal foramen is compressed, and very narrow, and the nostril on the morbid side is nearly united with the septum nasi. The left parietal bone and the left side of the frontal bone are nearly flat, which is the case of the whole of that side of the cranium.

V.—CHEMICAL.

*Analysis of the Cocoa Nut.*—Trommsdorff gives the following as the result of an analysis of this nut. The *fluid*, or *milk*, contains free carbonic acid, a salt, probably malate of lime, an albuminous matter, sugar, and water. The *fleshy* part, or *kernel*, a fat oil, or rather from its readily congealing a vegetable butter, an aqueous fluid, albumen, and a saccharine matter (*mucose-sucré*).—From the combination of these principles, this nut must be extremely nutritious.

VI.—TOXICOLOGY.

*M. Orfila.*—The lovers of Science will rejoice to learn that this celebrated Experimentalist has quitted Paris on a voyage to Africa; chiefly for the purpose of pursuing his inquiries into the nature of Poisons to enrich his *Toxicology*.

M. *Mangili* lately read a paper to the Italian Institute, containing some experiments on the venom of the viper; the results of which we must defer giving to a future opportunity.

VII.—NATURAL HISTORY.

In various parts of Switzerland, live insects were found, in February last, crawling upon the snow. They were mostly the larvæ of the Cantharis *fusca*, which it was supposed had been roused from their dormant state by the early thaw.

VIII.—MISCELLANEOUS.

*The Apothecary's Act.*—It is with extreme satisfaction we have to announce, that a Bill will be immediately brought into Parliament, to amend the present Act; principally with a view to remove its retrospective effect from the Army and Navy Surgeons, Students, and Assistants, who were so at the passing of the Act; and from all Apprentices who were bound, previously to the first of August 1815, for a less term than five years.

A Correspondent wishes to obtain, through the medium of the *Repository*, answers to the following queries: 1. Will *perspiration* act on *chyle*, at any temperature, in a manner in any degree similar to that of rennet on milk; or what effect or alteration is, or appears probable to be, produced by such an admixture?—2. Supposing it possible for such a mixture to take place in the thoracic duct, what would be its effect on the appearance of the blood?

# A METEOROLOGICAL TABLE,

*From the 21st of April to the 20th of May, 1816,*

KEPT AT RICHMOND, YORKSHIRE.

230 Miles NW from London.

| D. | Barometer. Max. | | Barometer. Min. | | Therm. Max | Therm. Min. | Rain Gage. | Winds. | Weather. |
|---|---|---|---|---|---|---|---|---|---|
| 21 | 29 | 45 | 29 | 43 | 59 | 34 | | ESE... | 1 Sun... |
| 22 | 29 | 52 | 29 | 48 | 68 | 40 | | E.N. | 1 Sun.. 2 Cloud... |
| 23 | 29 | 63 | 29 | 60 | 47 | 40 | 40 | N. | 1 Rain... |
| 24 | 29 | 73 | 29 | 72 | 55 | 39 | | N.NE. | 1 Mist... 2 Sun. 3 Clo... |
| 25 | 29 | 83 | 29 | 80 | 50 | 37 | | NNE.. | 1 Mist... |
| 26 | 29 | 83 | 29 | 72 | 54 | 34 | | NE. | 1 Mist.. 2 Sun.... |
| 27 | 29 | 69 | 29 | 58 | 66 | 35 | | NNE. | 13 Sun.... 2 Cy.. 4 Stl.... |
| 28 | 29 | 41 | 29 | 29 | 65 | 41 | 01 | SE.. | 1 Sun.. 3 Sh of R. |
| 29 | 29 | 23 | 29 | 23 | 65 | 43 | 03 | SSE.. | 1 Sun. & Sh. |
| 30 | 29 | 24 | 29 | 24 | 63 | 41 | 22 | SE..NE.. | 1 Sh.. & Sun.. |
| 1 | 29 | 34 | 29 | 28 | 63 | 37 | 07 | SW.SE. | 1 Sun.. & Sh. Th.. Ligt |
| 2 | 29 | 44 | 29 | 44 | 62 | 41 | 13 | SE.SW.. | 1 Sun.. & Sh.. |
| 3 | 29 | 55 | 29 | 45 | 60 | 40 | 02 | SW..W.. | 1 Sh. 2 Sun.. |
| 4 | 29 | 63 | 29 | 48 | 62 | 44 | 02 | W.. | 1 Sun.. 3 Rain. |
| 5 | 29 | 46 | 29 | 32 | 60 | 47 | 19 | SE.NE | 1 Rain.. |
| 6 | 29 | 61 | 29 | 54 | 64 | 42 | | W.. | 1 Sun.. |
| 7 | 29 | 34 | 29 | 22 | 63 | 43 | 07 | Vble.SE. | 1 Sun.. 2 Cy.. 3 Rain. |
| 8 | 29 | 19 | 29 | 15 | 62 | 42 | | WSW..Vble.. | 1 Sun... |
| 9 | 29 | 38 | 29 | 27 | 50 | 34 | 17 | NW.E | 13 Rain.. 2 Sun. 4 Cy.. |
| 10 | 29 | 03 | 29 | | 47 | 33 | 05 | SE.NNE. | 14 Cloud.. 23 Snow. |
| 11 | 29 | | 29 | | 54 | 32 | 06 | NW. | 1 Sun.. & Sh of Snow. |
| 12 | 29 | 20 | 29 | 15 | 50 | 33 | 01 | NW. | 1 Sh of Snow. 2 Sun.. |
| 13 | 29 | 38 | 29 | 37 | 56 | 35 | | NW.E. | 1 Sun.. |
| 14 | 29 | 49 | 29 | 49 | 64 | 35 | | W.NE. | 1 Sun.. |
| 15 | 29 | 52 | 29 | 52 | 68 | 48 | | N.SE. | 1 Sun.. 2 Cloud.. |
| 16 | 29 | 49 | 29 | 44 | 67 | 48 | 19 | SE. | 1 Mist.... 2 Cloud.. 4 R.. |
| 17 | 29 | 54 | 29 | 54 | 65 | 56 | 10 | SE. | 1 Rain.. 3 Cloud.. 4 Stl.. |
| 18 | 29 | 55 | 29 | 54 | 55 | 40 | | NE. | 1 Cloud.. |
| 19 | 29 | 54 | 29 | 53 | 64 | 45 | ·01 | NbE. | 13 Sun. 2 Cloud. 4 R. |
| 20 | 29 | 62 | 29 | 60 | 68 | 37 | | WbN.NE. | 1 Sun. 2 Cloud.. 4 Stl.... |

The quantity of rain during the month of April was 1 inch 63-100ths. The weather has been rather warmer during this last period than the preceding; vegetation advances but slowly.

## *Observations on Diseases at Richmond.*

The Catarrhal Fever, which has so long prevailed, has nearly disappeared. Many have had a teasing-cough without fever. Gastrodynia has been more common than usual. Hooping-Cough also continues, but with less severity. Many cases of simple fever have occurred. The other diseases under treatment were Anasarca, Asthma, Diarrhœa, Menorrhagia, Obstipatio, Ophthalmia, Pneumonia, Podagra, and Rheumatismus.

# METEOROLOGICAL TABLE FOR LONDON,

*From the 20th of APRIL, to the 19th of MAY, 1816,*

By Messrs. HARRIS & Co.

*Mathematical Instrument Makers, 50, High Holborn.*

| M. | D. | Therm. | | | Barom. | | Rain Guage | De Luc's Dry. | | Hygrom. Damp. | | Winds. | | Atmo. Variation. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 | 42 | 50 | 43 | 30¹ | 30 | | | | 0 | 0 | SW | E | Fine | — | — |
| | 21 | 47 | 46 | 44 | 29⁷ | 20⁷ | | | | 2 | 7 | NW | NW | Clo. | Rain | Clo. |
| | 22 | 52 | 52 | 50 | 29⁷ | 29⁷ | 04 | | | 9 | 14 | NE | ENE | Clo. | Rain | Clo. |
| ◐ | 23 | 53 | 62 | 49 | 29⁷ | 29⁸ | | | | 12 | 12 | NE | NE | Fine | — | — |
| | 24 | 48 | 59 | 46 | 29⁸ | 29⁸ | | | | 10 | 10 | N | NE | Fine | — | — |
| | 25 | 49 | 62 | 44 | 29⁸ | 29⁸ | 06 | | | 9 | 8 | NE | NE | Fine | — | — |
| | 26 | 48 | 60 | 44 | 29⁹ | 30 | | | | 7 | 5 | N va | NNE | Fine | — | — |
| | 27 | 47 | 62 | 45 | 30¹ | 30¹ | 10 | | 5 | | | NE | NNE | Fine | — | — |
| | 28 | 47 | 60 | 45 | 30¹ | 29⁹ | | 4 | 1 | | | NNE | NNE | Fine | — | — |
| | 29 | 56 | 61 | 52 | 29⁹ | 29⁷ | 05 | | | 2 | 2 | E | E | Fine | Clo. | Fine |
| ● | 30 | 59 | 64 | 50 | 29⁶ | 29⁶ | | 1 | 1 | | | SW | SSW | Clo. | — | — |
| | 1 | 54 | 58 | 45 | 29⁵ | 29⁶ | 07 | | | 1 | 1 | SE | SW | Rain | Clo. | Fine |
| | 2 | 55 | 57 | 42 | 29⁶ | 29⁹ | 01 | 0 | 0 | 0 | 0 | SW | W | Fine | — | — |
| | 3 | 50 | 52 | 50 | 30 | 29⁹ | | 0 | | 0 | 5 | S | WSW | Clo. | Rain | — |
| | 4 | 50 | 52 | 46 | 30¹ | 30 | 07 | | | 4 | 2 | W | SW | Clo. | — | — |
| | 5 | 50 | 55 | 47 | 29⁸ | 29⁸ | 20 | | | 7 | 7 | SSW | W | Rain | Clo. | Fine |
| ◐ | 6 | 53 | 57 | 47 | 29⁹ | 30 | | | | 8 | 6 | NW | W | Clo. | — | — |
| | 7 | 52 | 55 | 45 | 29⁹ | 29⁷ | | | | 5 | 8 | SSW | SW | Fine | — | Clo. |
| | 8 | 51 | 55 | 46 | 29⁶ | 29⁴ | 07 | | | 5 | 7 | WSW | N | Fine | Rain | — |
| | 9 | 52 | 56 | 43 | 29⁵ | 29⁶ | 13 | | | 5 | 4 | NW | N | Clo. | — | — |
| | 10 | 44 | 47 | 40 | 29⁵ | 29¹ | 11 | | | 5 | 6 | SE | SW | Rain | — | — |
| | 11 | 41 | 47 | 38 | 29² | 29³ | 54 | | | 5 | 4 | N | SW | Sho. | Fine | Clo. |
| | 12 | 43 | 40 | 35 | 29³ | 29⁵ | 04 | | | 1 | 3 | NW | WSW | Clo. | Hail | Fine |
| | 13 | 45 | 48 | 39 | 29⁵ | 29⁷ | | | | 4 | 4 | W | WSW | Fine | — | Rain |
| | 14 | 45 | 49 | 40 | 29⁸ | 29⁹ | 02 | | | 4 | 4 | WSW | SSE | Fine | — | — |
| ○ | 15 | 48 | 52 | 42 | 29⁸ | 29⁹ | | | | 8 | 10 | E | ESE | Rain | — | Clo. |
| | 16 | 52 | 62 | 52 | 29⁹ | 29⁷ | | | | 12 | 11 | SSE | E | Fine | Clo. | Rain |
| | 17 | 62 | 67 | 62 | 29⁶ | 29⁷ | 05 | | | 10 | 5 | ENE | E | Fine | — | — |
| | 18 | 49 | 50 | 40 | 29⁸ | 29⁸ | | | 0 | 3 | 0 | NNE | NNE | Fine | Clo. | — |
| | 19 | 42 | 53 | 42 | 29⁶ | 29⁸ | | 1 | 0 | | 0 | NE | E | Clo. | Fine | Clo. |

The quantity of Rain during the month of April, is 1 inch 42-100ths.

## BILL OF MORTALITY *from April 16, to May 21, 1816.*

| | | *April 23.* | *April 30.* | *May 7.* | *May 14.* | *May 21.* | |
|---|---|---|---|---|---|---|---|
| CHRISTENED. | Males | 243 | 284 | 190 | 311 | 223 | |
| | Females | 293 | 243 | 188 | 263 | 202 | |
| | | 536 | 527 | 378 | 574 | 425 | Total, (five weeks) 2460. |
| BURIED | Males | 186 | 220 | 179 | 227 | 177 | |
| | Females | 159 | 244 | 218 | 202 | 187 | |
| | | 345 | 464 | 397 | 429 | 364 | Total, (five weeks) 1999. |
| OF WHOM HAVE DIED | Under 2 Years | 85 | 111 | 102 | 120 | 105 | |
| | Betw. 2 and 5 | 32 | 46 | 49 | 38 | 40 | |
| | 5 and 10 | 10 | 15 | 11 | 20 | 14 | |
| | 10 and 20 | 7 | 12 | 27 | 14 | 16 | |
| | 20 and 30 | 18 | 39 | 26 | 32 | 25 | |
| | 30 and 40 | 47 | 43 | 30 | 36 | 31 | |
| | 40 and 50 | 32 | 51 | 35 | 43 | 34 | |
| | 50 and 60 | 40 | 46 | 35 | 44 | 29 | |
| | 60 and 70 | 34 | 39 | 32 | 37 | 27 | |
| | 70 and 80 | 23 | 38 | 29 | 24 | 23 | |
| | 80 and 90 | 14 | 22 | 18 | 18 | 15 | |
| | 90 and 100 | 3 | 2 | 5 | 3 | 5 | |
| SMALL POX | | 8 | 12 | 14 | 9 | 1 | |

Total of Small Pox...(five weeks)...44

## A REGISTER OF DISEASES

*Between APRIL 20th, and MAY 19th, 1816.*

| DISEASES. | Total. | Fatal. | DISEASES. | Total. | Fatal. |
|---|---|---|---|---|---|
| Abortio | 25 | | Eneuresis | 4 | |
| Abscessio | 24 | | Enteritis | 10 | 2 |
| Acne | 6 | | Entrodynia | 25 | |
| Amaurosis | 6 | | Epilepsia | 9 | |
| Amenorrhœa | 30 | | Epistaxis | 10 | |
| Anasarca | 29 | 3 | Erysipelas | 21 | |
| Aneurisma | 1 | | Erythema *læve* | 3 | |
| Angina Pectoris | 1 | | Febris *intermittent* | 31 | |
| Anorexia | 8 | | —— *catarrhalis* | 43 | |
| Aphtha *lactentium* | 6 | | —— *Synocha* | 29 | |
| —— *anginosa* | 3 | | —— *Typhus mitior* | 15 | |
| Apoplexia | 13 | 5 | —— *Typhus gravior* | 5 | 1 |
| Ascites | 25 | 3 | —— *Synochus* | 43 | 2 |
| Asthenia | 38 | 3 | —— *Puerpera* | 4 | |
| Asthma | 81 | 3 | —— *remit. Infant* | 12 | |
| Atrophia | 1 | | —— *Petechiales* | 1 | |
| Bronchitis *acuta* | 13 | | Fistula | 5 | |
| —— *chronica* | 4 | | Fungus *hæmatodes* | 1 | |
| Bronchocele | 6 | | Furunculus | 12 | |
| Calculus | 1 | | Gastritis | 6 | |
| Cancer | 4 | 1 | Gastrodynia | 39 | |
| Carbunculus | 1 | | Gonorrhœa | 26 | |
| Cardialgia | 22 | | Hæmatemesis | 2 | |
| Carditis | 1 | | Hæmaturia | 2 | |
| Catalepsis | 1 | | Hæmoptöe | 28 | 1 |
| Catarrhus | 110 | | Hæmorrhois | 35 | |
| Cephalalgia | 39 | | Hemiplegia | 9 | 2 |
| Cephalæa | 9 | | Hepatalgia | 3 | |
| Chlorosis | 14 | | Hepatitis | 22 | |
| Chorea | 4 | | Hernia | 10 | |
| Cholera | 17 | | —— *humorrhalis* | 1 | |
| Colica | 15 | | Herpes *Zoster* | 6 | |
| —— *Pictonum* | 2 | | —— *circinatus* | 3 | |
| Convulsio | 8 | 1 | —— *labialis* | 1 | |
| Cynanche *Tonsillaris* | 61 | | —— *præputialis* | 1 | |
| —— *maligna* | 1 | | Hydrocele | 1 | |
| —— *Trachealis* | 3 | 1 | Hydrocephalus | 11 | 7 |
| —— *Parotidea* | 15 | | Hydrothorax | 5 | 5 |
| —— *Pharyngea* | 3 | | Hypochondriasis | 11 | |
| —— *Laryngea* | 5 | | Hysteralgia | 1 | |
| Diarrhœa | 59 | 2 | Hysteria | 26 | |
| Dysecöea | 1 | | Hysteritis | 1 | |
| Dysenteria | 12 | 7 | Icterus | 6 | |
| Dyspepsia | 110 | | Impetigo *figurata* | 3 | |
| Dyspnœa | 29 | | —— *sparsa* | 1 | |
| Dysphagia | 1 | | —— *erysipelatodes* | 5 | |
| Dysuria | 2 | | —— *scabida* | 1 | |
| Ecthyma | 1 | | Impetigo *rodens* | 1 | |
| Eczema | 1 | | Ischuria | 8 | |
| Empyema | 3 | | Lepra | 5 | |

| DISEASES. | Total. | Fatal. | DISEASES. | Total. | Fatal. |
|---|---|---|---|---|---|
| Leucorrhœa | 31 | | Porrigo *scutulata* | 4 | |
| Lichen *simplex* | 1 | | ——— *favosa* | 1 | |
| Lithiasis | 2 | | Prolapsus | 6 | |
| Lumbago | 4 | | Prurigo *formicans* | 3 | |
| Mania | 7 | 1 | Psoriasis *guttata* | 4 | |
| Melancholia | 5 | | ——— *gyrata* | 4 | |
| Menorrhagia | 26 | 1 | ——— *inveterata* | 5 | |
| Morbi *Infantiles** | 105 | 2 | Pyrosis | 5 | |
| ——— *Biliosi** | 96 | 3 | Rachitis | 1 | |
| Nephralgia | 1 | | Rehumatismus *acutus* | 71 | |
| Nephritis | 6 | | ——— *chronicus* | 66 | |
| Neuralgia | 5 | | Roseola | 2 | |
| Obstipatio | 29 | | Rubeola | 48 | 3 |
| Odontalgia | 17 | | Scabies | 62 | |
| Ophthalmia | 58 | | Scarlatina *simplex* | 16 | |
| Otalgia | 5 | | ——— *anginosa* | 6 | |
| Palpitatio | 8 | | Scirrhus | 1 | |
| Paracusis | 1 | | Scorbutus | 2 | |
| Paralysis | 11 | 1 | Scrofula | 25 | |
| Paronychia | 3 | | Spasmi | 23 | |
| Peripneumonia | 13 | 1 | Splenitis | 1 | |
| Peritonitis | 4 | | Strictura | 9 | |
| Pernio | 1 | | Singultus | 1 | |
| Pertussis | 48 | 3 | Syncope | 5 | |
| Phlegmasia *dolens* | 2 | | Syphilis | 51 | |
| Phlogosis | 11 | | Tabes Mesenterica | 5 | 1 |
| Phrenitis | 6 | 4 | Vaccinia | 49 | |
| Phthisis *Pulmonalis* | 38 | 20 | Varicella | 9 | |
| Plethora | 5 | | Variola | 49 | 6 |
| Pleuritis | 21 | | Vermes | 23 | |
| Pleurodyne | 7 | | Vertigo | 20 | |
| Pneumonia | 33 | 4 | Urticaria *febrilis* | 2 | |
| Podagra | 23 | 1 | | | |
| Polypus | 1 | | Total of Cases | 2640 | — |
| Porrigo *larvalis* | 3 | | Total of Deaths | | 100 |

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct heads; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

## *Observations on Prevailing Diseases.*

Although the temperature of the last month has been cold, and variable for the vernal season, yet the affections of the respiratory organs, which we noticed to be so prevalent in the former, have considerably abated, both in frequency and violence.

Disorders of the alimentary canal have assumed the severer forms of *Cholera* and *Dysenteria*; and the latter has been more fatal than ever we have had occasion to remark; seven out of twelve cases having proved mortal; one of which was accompanied by typhoid fever. There are also two deaths from *Diarrhœa*, and three under the general head of *Morbi biliosi*.

*Pertussis* appears in a very aggravated form.

*Variola* is spreading; but it is generally among the lowest and most illiterate classes of people, where accumulated filth and want of ventilation nourish the fomes of infection.

*Rubeola*, since the period which the Register embraces (to May the 19th), is rapidly extending, and is of a malignant character. In two of the fatal cases here recorded of this disease, some uncommon symptoms were remarked. In the one, which was not seen till the second day of eruption, the eruption had quickly receded, the heat had subsided, the pulse had sank, and the child soon died. In the other, the roof of the mouth, tonsils, and uvula, became gangrenous; and a similar condition seemed to extend itself into the nostrils.

One of the cases of *Phrenitis* was induced by hard drinking; and was accompanied by low fever: another occurred in a man who had had frequent attacks of mania. Four of six cases of *Phrenitis* have been fatal.

A female, attacked with *Mania*, was delivered two days afterwards; from which event, she lived only three days.

One of our Reporters states, that he has experienced, in long protracted cases of acute rheumatism, evident, and even great advantages, from the exhibition of the *acetum colchici*; and that the same medicine appears to have been beneficial, not only in regular gout, but in a case of apparently misplaced gout.

*Examinationes post Mortem.*—1. In a patient who died from *Anasarca*, there were discovered ossification on the substance of the parietes of the left ventricle of the heart, and cartilaginous concretions about the mitral valves. The liver was tuberculated.—2. The ileum and large intestines of one of the persons who died from dysentery, were very much ulcerated.—3. On examining the lungs of a patient who died of *Phthisis hæmoptorica*, several earthy concretions were found in the parenchyema of the lungs.

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*Monthly Prices of* SUBSTANCES *employed in* PHARMACY.

| | | S. | D. |
|---|---|---|---|
| Acaciæ Gummi elect. | lb. | 4 | 0 |
| Acidum Citricum | | 32 | 0 |
| —— Benzoicum | unc. | 6 | 6 |
| —— Sulphuricum | P. lb. | 0 | 9 |
| —— Muriaticum | | 2 | 0 |
| —— Nitricum | | 4 | 0 |
| —— Aceticum | cong. | 5 | 0 |
| Alcohol | M. lb. | 5 | 0 |
| Æther sulphuricus | | 10 | 6 |
| —— rectificatus | | 14 | 0 |
| Ærugo | lb. | 7 | 6 |
| Aloes spicatæ extractum | | 7 | 6 |
| — vulgaris extractum | | 5 | 0 |
| Althææ Radix | | 1 | 6 |
| Alumen | | 0 | 6 |
| Ammoniæ Murias | | 2 | 6 |
| —— Subcarbonas | | 4 | 0 |
| Amygdalæ dulces | | 4 | 6 |
| Ammoniacum (Gutt.) | | 9 | 6 |
| —— (Lump.) | | 5 | 0 |
| Anthemidis Flores | | 2 | 3 |
| Antimonii oxydum | | 7 | 0 |
| —— sulphuretum | | 1 | 3 |
| Antimonium Tartarizatum | | 8 | 0 |
| Arsenici Oxydum | | 1 | 6 |
| Assafœtidæ Gummi-resina | lb. | 5 | 6 |
| Aurantii Cortex | | 3 | 6 |
| Argenti Nitras | unc. | 7 | 0 |

| | | S. | D. |
|---|---|---|---|
| Balsamum Peruvianum | lb. | 34 | 0 |
| —— Tolutanum | | 24 | 0 |
| Benzoinum elect. | | 12 | 0 |
| Calamina præparata | | 0 | 6 |
| Calumbæ Radix | | 3 | 0 |
| Cambogia | | 10 | 0 |
| Camphora | | 9 | 0 |
| Canellæ Cortex | | 6 | 6 |
| Cardamomi Semina opt. | lb. | 10 | 6 |
| Cascarillæ Cortex | | 4 | 0 |
| Castoreum | unc. | 5 | 0 |
| Catechu Extractum | lb. | 3 | 6 |
| Cetaceum | | 3 | 6 |
| Cera alba | | 3 | 9 |
| —— flava | | 3 | 6 |
| Cinchonæ cordifoliæ Cortex (yellow) | | 8 | 6 |
| —— lancifoliæ Cortex (quilled) | | 10 | 6 |
| —— oblongifoliæ Cortex (red) | | 16 | 0 |
| Cinnamomi Cortex | | 20 | 0 |
| Coccus (Coccinella) | unc. | 3 | 6 |
| Colocynthidis Pulpa | lb. | 36 | 0 |
| Copaiba | | 6 | 0 |
| Colchici Radix | | 3 | 6 |
| Croci stigmata | unc. | 6 | 8 |
| Cupri sulphas | lb. | 1 | 2 |
| Cuprum ammoniatum | | 14 | 0 |
| Cuspariæ Cortex | | 4 | 0 |
| Confectio aromatica | | 9 | 0 |

| | | S. | D. |
|---|---|---|---|
| Confectio Aurantiorum | | 3 | 6 |
| —— Opii | | 6 | 6 |
| —— Rosæ caninæ | | 2 | 0 |
| —— Rosæ gallicæ | | 2 | 3 |
| —— Sennæ | | 2 | 0 |
| Emplastrum Lyttæ | | 7 | 6 |
| —— Hydrargyri | | 3 | 6 |
| Extractum Belladonnæ | unc. | 2 | 0 |
| —— Cinchonæ | | 3 | 0 |
| —— Cinchonæ resinosum | | 5 | 0 |
| —— Colocynthidis | | 4 | 0 |
| —— Colocynthidis comp. | | 2 | 0 |
| —— Conii | | 0 | 9 |
| —— Elateri | | 30 | 0 |
| —— Gentianæ | | 0 | 6 |
| —— Glycyrrhizæ | lb. | 5 | 0 |
| —— Hæmatoxyli | unc. | 0 | 9 |
| —— Humuli | | 0 | 9 |
| —— Hyoscami | unc. | 1 | 6 |
| —— Jalapæ | 2s. 6d. Ros. | 4 | 0 |
| —— Opii | | 3 | 6 |
| —— Papaveris | | 1 | 6 |
| —— Rhei | | 3 | 0 |
| —— Sarsaparillæ | | 1 | 6 |
| —— Taraxaci | | 0 | 9 |
| Ferri subcarbonas | lb. | 5 | 0 |
| — sulphas | | 2 | 0 |
| Ferrum ammoniatum | | 6 | 0 |
| —— tartarizatum | | 6 | 0 |
| Galbani Gummi-resina. | | 12 | 0 |
| Gentianæ Radix elect | | 1 | 6 |
| Guaiaci resina | | 7 | 6 |
| Hydrargyrum purificatum | | 3 | 6 |
| —— praecipitatum album | | 9 | 0 |
| —— cum creta | | 7 | 6 |
| Hydrargyri Oxymurias | unc. | 0 | 9 |
| —— Submurias | | 0 | 9 |
| —— Nitrico-Oxydum | | 0 | 9 |
| —— Oxydum Cinereum | | 1 | 6 |
| —— Oxydum rubrum | | 6 | 0 |
| —— Sulphuretum nigrum | | 0 | 4 |
| —— —— rubrum | | 0 | 9 |
| Hellebori nigri Radix | lb. | 3 | 6 |
| Ipecacuanhæ Radix | | 18 | 0 |
| —— Pulvis | | 20 | 0 |
| Jalapæ Radix | | 5 | 6 |
| —— Pulvis | | 6 | 6 |
| Kino | | 10 | 6 |
| Liquor Plumbi subacetatis | M. lb. | 1 | 8 |
| — Ammoniæ | | 3 | 6 |
| — Potassæ | | 1 | 6 |
| Linimentum Camphoræ comp. | | 6 | 6 |
| —— saponis comp. | | 4 | 6 |
| Lichen | lb. | 1 | 4 |
| Lyttæ | | 14 | 0 |
| Magnesia | | 12 | 0 |
| Magnesiæ Carbonas | | 4 | 0 |
| —— Sulphas, opt. | | 1 | 2 |
| Manna optima | | 7 | 6 |
| — communis | | 5 | 6 |
| Moschus pod, (30s.) in gr. | unc. | 40 | 0 |
| Mastiche | lb. | 7 | 0 |
| Myristicæ Nuclei | | 20 | 0 |
| Myrrha elect. | | 7 | 6 |
| Olibanum | | 4 | 6 |
| Opoponacis gummi resina | | 30 | 0 |
| Opium (Turkey) | | 40 | 0 |
| Opium (East India) | | | |
| Oleum Ætherium | oz. | 2 | 6 |
| — Amygdalarum | lb. | 4 | 8 |
| — Anisi | unc. | 3 | 0 |
| — Anthemidis | | 6 | 6 |
| — Cassiæ | | 9 | 0 |
| — Caryophilli | | 6 | 6 |
| — Cajuputi | | 8 | 0 |
| — Carui | | 1 | 6 |
| — Juniperi Ang. | | 5 | 0 |
| — Lavandulæ | | 4 | 6 |
| — Lini | cong. | 6 | 6 |
| — Menthæ piperitæ | unc. | 4 | 0 |
| — Menthæ viridis Ang. | | 2 | 6 |

| | | S. | D. |
|---|---|---|---|
| Oleum Pimentæ | unc. | 6 | 0 |
| — Ricini optim. | (per bottle) | 12 | 0 |
| — Rosmarini | unc. | 1 | 0 |
| — Succini | 2s. 6d. —— rect. | 5 | 0 |
| — Sulphuratum | P. lb. | 1 | 6 |
| — Terebinthinæ | | 1 | 4 |
| — —— rectificatum | | 2 | 6 |
| Olivæ Oleum | cong. | 20 | 0 |
| — Oleum secundum | | 12 | 0 |
| Papaveris Capsulæ | (per 100) | 3 | 6 |
| Plumbi subcarbonas | lb. | 0 | 8 |
| — Superacetas | | 2 | 0 |
| — Oxydum semi-vitreum | | 0 | 9 |
| Potassa Fusa | unc. | 1 | 4 |
| — cum Calce | | 0 | 6 |
| Potassæ Nitras | lb. | 1 | 4 |
| — Acetas | | 10 | 0 |
| — Carbonas | | 4 | 6 |
| — Supercarbonas | | 1 | 2 |
| — Sulphas | | 1 | 6 |
| — Sulphuretum | | 2 | 6 |
| — Supersulphas | | 0 | 9 |
| — Tartras | | 3 | 6 |
| — Supertartras | | 1 | 10 |
| Pilulæ Hydrargyri | unc. | 0 | 9 |
| Pulvis Antimonialis | | 0 | 9 |
| — Contrayervæ comp. | | 0 | 6 |
| — Tragacanthæ comp. | | 0 | 6 |
| Resina Flava | lb. | 0 | 5 |
| Rhei Radix (Russia) | | 12 | 0 |
| —— (East India) opt. | | 16 | 0 |
| Rosæ petala | | 18 | 0 |
| Sapo (Spannsh) | | 5 | 0 |
| Sarsaparillæ Radix | | 8 | 0 |
| Scammoneæ Gummi-Resina | unc. | 5 | 0 |
| Scillæ Radix siccat, opt. | lb. | 4 | 6 |
| Senegæ Radix | | 4 | 6 |
| Sennæ Folia | | 6 | 6 |
| Serpentariæ Radix | | 3 | 6 |
| Simaroubæ Cortex | | 6 | 0 |
| Sodæ subboras | | 4 | 0 |
| — Sulphas | | 0 | 6 |
| — Carbonas | | 0 | 6 |
| — Subcarbonas | | 2 | 0 |
| — —— exsiccata | | 5 | 0 |
| Soda tartarizata | | 2 | 6 |
| Spongia usta | | 26 | 0 |
| Spiritus Ammoniæ | M. lb. | 5 | 0 |
| — —— aromaticus | | 6 | 0 |
| — —— fœtidus | | 6 | 0 |
| — —— succinatus | | 5 | 6 |
| — Cinnamomi | | 3 | 0 |
| — Lavendulæ | | 5 | 0 |
| — Myristicæ | | 3 | 0 |
| — Pimentæ | | 5 | 0 |
| — Rosmarini | | 5 | 0 |
| — Ætheris Aromaticus | | 7 | 6 |
| — — Nitrici | | 5 | 0 |
| — — Sulphurici | | 7 | 0 |
| — — Compositus | | 7 | 6 |
| — Vini rectificatus | cong. | 27 | 0 |
| Syrupus Papaveris | lb. | 2 | 0 |
| Sulphur | | 0 | 2 |
| — Sublimatum | | 1 | 0 |
| — Lotum | | 1 | 2 |
| — Præcipitatum | | 1 | 4 |
| Tamarindi Pulpa opt. | | 2 | 0 |
| Terebinthina Vulgaris | | 0 | 10 |
| —— Canadensis | | 8 | 6 |
| —— Chia | | 14 | 0 |
| Tinct. Ferri muriatis | | 5 | 6 |
| Tragacantha Gummi, elect. | | 8 | 0 |
| Valerianæ Radix | | 1 | 8 |
| Veratri Radix | | 2 | 0 |
| Unguentum Hydrargyri fortius | | 5 | 6 |
| —— —— Nitratis | | 2 | 8 |
| —— —— Nitrico-oxydi | | 3 | 0 |
| Uvæ Ursi Folia | | 3 | 6 |
| Zinci Oxydum | | 7 | 0 |
| — Sulphas purif. | | 3 | 0 |
| Zingiberis Radix opt. | | 5 | 0 |

Prices of New Phials per Gross.——8 oz. 70s.—6 oz. 58s.—4 oz. 47s.—3 oz. 42s.—2 oz. and 1½ oz. 36s.—1 oz. 30s.—half oz. 24s.——The London Glassmen allow 10 per Cent, ready money.——The Manufacturers in the Country, where all Phials are made, allow 27½ discount, at three months credit, (carriage free,) to London.

Prices of second-hand Phials cleaned, and sorted.——8 oz. 46s.—6 oz. 44s.—4 oz. 35s. 3oz. 30s.—2 oz. and all below this size, 25s.—Three months credit.

NOTICES OF LECTURES.

Dr. Squire and Dr. Davis will, about the middle of this month, begin a Course of Lectures on the Theory and Practice of Midwifery and the Diseases of Women and Children.—Particulars may be known of Dr. Squire, 40, Ely Place, or of Dr. Davis, 18, Charlotte Street, Bloomsbury.

Mr. Carpue will commence his Anatomical Lectures at his Theatre, No. 50, Dean Street, Soho, on Monday, the 10th of June, 1816.—Further particulars may be known by applying to Mr. Carpue.

LITERARY NOTICES.

Dr. A. Copland Hutchison, late Surgeon to the Royal Naval Hospital at Deal, will soon publish Practical Remarks on Surgery.

Dr. Hallaran, of Cork, is preparing a new and enlarged Edition of his work on Insanity.

Dr. J. Reid is occupied in writing some Observations on Nervous Affections.

A new Monthly Medical Journal has made its appearance in Paris, intitled, "Journal Universel des Sciences Medicales."

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## MONTHLY CATALOGUE OF BOOKS.

Observations and Inquiries into the Nature and Treatment of the Yellow, or Bulam Fever, in Jamaica and at Cadiz. By Edward Doughty, Member of the Royal College of Surgeons of London, and Surgeon to the Forces. 1 vol. 8vo.

An Analysis of the Mineral Water of Tunbridge Wells, with some Account of its Medicinal Properties. By Charles Scudamore, M.D. &c. &c. To which are annexed, some Observations on the Water with which Tunbridge Wells is chiefly supplied for Domestic Purposes. By Thomas Thomson, M.D. F.R.S.L. et E. F.L.S. &c. 8vo. London.

The Modern Practice of Physic, exhibiting the Characters, Causes, Symptoms, Prognostics, Morbid Appearances, and Improved Method of Treating the Diseases of all Climates. By Robert Thomas, M.D. Fifth edition, revised and considerably enlarged. 8vo.

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ERRATA in the last Number.

Page 395 line, 9. *for* five *read* fine
424 — 30. *for* K *read* X
40. *for* B.B. *read* V.V.
18. *for* I *read* J.

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This Publication, by application to the Clerks of the General Post Office, London; or, if previously ordered, of the Post Masters, British or Foreign, will be sent to any of the British Colonies or Foreign Countries, upon the same terms as other Periodical Works.

*Communications intended for insertion in the subsequent Number should be sent before the 12th of the month; and should be addressed (free of expence) to* Mr. Shury, *Printer, 7, Berwick Street, Soho; by whom Books for the Review Department, Articles of Intelligence, &c. &c. will also be received.*

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*Mr. BURROWS, having experienced numerous and unequivocal testimonies of the regard and confidence of his Professional Brethren of all ranks, trusts he shall not diminish any portion of their esteem; if, through the medium of the* REPOSITORY, *he obtrudes for once his private concerns on public notice.*

*From intense mental and corporeal exertions, a constitutional complaint to which Mr.* BURROWS *had long been subject, at length acquired a distressing ascendancy. Influenced by the conviction of increasing debility, and urged by the remonstrances of private and medical friends; he was induced to finally relinquish a line of practice, hitherto successfully exercised, but to the fatigues of which he found himself unequal.*

*However great and painful this sacrifice, yet the consolation presented, that, should he regain his health, other paths were open to professional eminence, fully as honorable, and not impracticable to one possessing character and industry.*

*Under this impression, and with the advice and promised support of many distinguished Practitioners, Mr.* BURROWS *has therefore determined henceforth to devote himself to the* Treatment *and* Care *of cases of* MENTAL ALIENATION.

*Happily, a residence of a year and a half in the environs of Town has restored him to his wonted vigour; and afforded him abundant leisure to study the nature of Insanity: from which, conviction has followed, that in most cases this disease is susceptible of much amelioration; and that the perfect recovery of many, precipitately deemed incurable, may be accomplished.*

*To carry into effect and to facilitate his Plans, Mr.* BURROWS *has fitted up KELLY-HOUSE, (at the Fourth Bar), in the* KING'S ROAD, CHELSEA, *for the reception of the Insane Patients confided to his superintendance; where also the Patients of other gentlemen may be accommodated, and receive their professional attendance. But to be nearer his friends and connections, it is his intention to reside again in London, as soon as he meets with an eligible abode:—until when, messages and letters will be received for him, at* Mr. WILLIAMS', *(his late Partner,) No. 34, Bloomsbury Square.*

20, *Brompton-Row, Knightsbridge,*
*January* 1*st*, 1816.